Baslac Safety Data Sheets

HARDENERS

NEW ZEALAND

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Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-10 1L Hardener Extra Fast

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat.5 (Inhalation - vapour)
Skin corrosion/irritation: Cat.2
Serious eye damage/eye irritation: Cat.2B
Aspiration hazard: Cat.1
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (Vapours may cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Flammable liquids: Cat.3
Specific target organ toxicity — repeated exposure: Cat.2

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H320	Causes eye irritation.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust or mist.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical attention.
P314	Get medical advice/attention if you feel unwell.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

HDI-Oligomer(Trimer)

Content (W/W): >= 30 % - < 50 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

n-Butyl acetate

Content (W/W): >= 25 % - < 30 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

xylene

Content (W/W): >= 10 % - < 12.5 %	Asp. Tox.: Cat. 1
CAS Number: 1330-20-7	Flam. Liq.: Cat. 3
	Acute Tox.: Cat. 5 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2B
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	STOT RE (Central nervous system, Liver, Kidney): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

isobutyl acetate

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq.: Cat. 2
CAS Number: 110-19-0	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

1-methoxy-2-propylacetate

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq.: Cat. 3
CAS Number: 108-65-6	STOT SE: Cat. 3 (drowsiness and dizziness)

ethylbenzene

Content (W/W): >= 1 % - < 2 %	Asp. Tox.: Cat. 1
CAS Number: 100-41-4	Flam. Liq.: Cat. 2
	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	STOT RE (Auditory organ): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

1,6-hexamethylene diisocyanate

Content (W/W): >= 0.1 % - < 0.2 %	Acute Tox.: Cat. 4 (oral)
CAS Number: 822-06-0	Acute Tox.: Cat. 1 (Inhalation - mist)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2A
	Resp. Sens.: Cat. 1
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the

product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Keep at rest. Rinse mouth immediately with water.

Note to physician:
Symptoms: Eye irritation, aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
nitrogen oxides
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)

Further information on storage conditions: Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

isobutyl acetate, 110-19-0;
TWA value 50 ppm (ACGIHTLV)
STEL value 150 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

1,6-hexamethylene diisocyanate, 822-06-0;
TWA value 0.005 ppm (ACGIHTLV)
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

HDI-Oligomer(Trimer), 28182-81-2;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray booth operatives. Ensure adequate ventilation. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid
Colour:	colourless
Odour:	aromatic
pH value:	
	substance/mixture reacts violently with water

Melting point:	not determined	
onset of boiling:	not determined	
Flash point:	> 26 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	(20 °C) not determined	
	(50 °C) not determined	
Density:	0.971 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Solubility in water:	Reacts with water.	
Miscibility with water:	immiscible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Viscosity, kinematic:	7.3 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 30 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Virtually nontoxic by inhalation.

Symptoms

Eye irritation aspiration pneumonia allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Skin contact causes irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: isobutyl acetate
Elimination information:
74 % BOD of the ThOD (10 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, domestic sewage, non-adapted)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-15 1L Hardener Fast

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat.3
Aspiration hazard: Cat.1
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (May cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Hazardous to the aquatic environment - chronic: Cat.3
Acute toxicity: Cat.5 (Inhalation - vapour)
Flammable liquids: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

n-Butyl acetate

Content (W/W): >= 30 % - < 50 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

HDI-Oligomer(Trimer)

Content (W/W): >= 25 % - < 30 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

isobutyl acetate

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq.: Cat. 2
	STOT SE: Cat. 3 (drowsiness and dizziness)
CAS Number: 110-19-0	Aquatic Acute: Cat. 3

xylene

Content (W/W): >= 7 % - < 10 %	Asp. Tox.: Cat. 1
CAS Number: 1330-20-7	Flam. Liq.: Cat. 3
	Acute Tox.: Cat. 5 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2B
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	STOT RE (Central nervous system, Liver, Kidney): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

isophorone diisocyanate (IPDI) polymer

Content (W/W): >= 7 % - < 10 %	Skin Sens.: Cat. 1
CAS Number: 53880-05-0	STOT SE: Cat. 3 (irr. to respiratory syst.)

1-methoxy-2-propylacetate

Content (W/W): >= 5 % - < 7 %	Flam. Liq.: Cat. 3
CAS Number: 108-65-6	STOT SE: Cat. 3 (drowsiness and dizziness)

ethylbenzene

Content (W/W): >= 1 % - < 2 %	Asp. Tox.: Cat. 1
CAS Number: 100-41-4	Flam. Liq.: Cat. 2
	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	STOT RE (Auditory organ): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 1 % - < 2 %	Flam. Liq.: Cat. 3
CAS Number: 763-69-9	Acute Tox.: Cat. 5 (oral)
	Aquatic Acute: Cat. 3
	Acute Tox.: Cat. 5 (dermal)

Solventnaphtha (petroleum), light aromatic

Content (W/W): >= 1 % - < 2 %	Asp. Tox.: Cat. 1
CAS Number: 64742-95-6	Flam. Liq.: Cat. 3
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Chronic: Cat. 2

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
nitrogen oxides
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;

TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

isobutyl acetate, 110-19-0;
TWA value 50 ppm (ACGIHTLV)
STEL value 150 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

isophorone diisocyanate (IPDI) polymer, 53880-05-0;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

HDI-Oligomer(Trimer), 28182-81-2;

STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Solventnaphtha (petroleum), light aromatic, 64742-95-6;

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
butyl rubber gloves - material thickness: 0.5 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray booth operatives. Ensure adequate ventilation. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	aromatic	
pH value:	substance/mixture reacts violently with water	
Melting point:	not determined	
onset of boiling:	not determined	
Flash point:	26 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	(20 °C) not determined	
	(50 °C) not determined	
Density:	0.976 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Solubility in water:	Reacts with water.	

Miscibility with water:
immiscible
Partitioning coefficient n-octanol/water (log Pow):
not applicable for mixtures

Viscosity, kinematic:	7.3 mm2/s (23 °C)	
	(40 °C) No data available.	
Flow time:	> 30 s (23 °C)	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs

may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Virtually nontoxic by inhalation.

Symptoms

aspiration pneumonia allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on available data, the classification criteria are not met.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. Harmful to aquatic life with long lasting effects. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: isobutyl acetate
Elimination information:
74 % BOD of the ThOD (10 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, domestic sewage, non-adapted)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO_2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III

Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-15 2,5L Hardener Fast

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat.3
Aspiration hazard: Cat.1
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (May cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Hazardous to the aquatic environment - chronic: Cat.3
Acute toxicity: Cat.5 (Inhalation - vapour)
Flammable liquids: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

n-Butyl acetate

Content (W/W): >= 30 % - < 50 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

HDI-Oligomer(Trimer)

Content (W/W): >= 25 % - < 30 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

isobutyl acetate

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq.: Cat. 2
	STOT SE: Cat. 3 (drowsiness and dizziness)
CAS Number: 110-19-0	Aquatic Acute: Cat. 3

xylene

Content (W/W): >= 7 % - < 10 %	Asp. Tox.: Cat. 1
CAS Number: 1330-20-7	Flam. Liq.: Cat. 3
	Acute Tox.: Cat. 5 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2B
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	STOT RE (Central nervous system, Liver, Kidney): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

isophorone diisocyanate (IPDI) polymer

Content (W/W): >= 7 % - < 10 %	Skin Sens.: Cat. 1
CAS Number: 53880-05-0	STOT SE: Cat. 3 (irr. to respiratory syst.)

1-methoxy-2-propylacetate

Content (W/W): >= 5 % - < 7 %	Flam. Liq.: Cat. 3
CAS Number: 108-65-6	STOT SE: Cat. 3 (drowsiness and dizziness)

ethylbenzene

Content (W/W): >= 1 % - < 2 %	Asp. Tox.: Cat. 1
CAS Number: 100-41-4	Flam. Liq.: Cat. 2
	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	STOT RE (Auditory organ): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 1 % - < 2 %	Flam. Liq.: Cat. 3
CAS Number: 763-69-9	Acute Tox.: Cat. 5 (oral)
	Aquatic Acute: Cat. 3
	Acute Tox.: Cat. 5 (dermal)

Solventnaphtha (petroleum), light aromatic

Content (W/W): >= 1 % - < 2 %	Asp. Tox.: Cat. 1
CAS Number: 64742-95-6	Flam. Liq.: Cat. 3
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Chronic: Cat. 2

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
nitrogen oxides
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;

TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

isobutyl acetate, 110-19-0;
TWA value 50 ppm (ACGIHTLV)
STEL value 150 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

isophorone diisocyanate (IPDI) polymer, 53880-05-0;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

HDI-Oligomer(Trimer), 28182-81-2;

STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Solventnaphtha (petroleum), light aromatic, 64742-95-6;

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
butyl rubber gloves - material thickness: 0.5 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray booth operatives. Ensure adequate ventilation. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	aromatic	
pH value:	substance/mixture reacts violently with water	
Melting point:	not determined	
onset of boiling:	not determined	
Flash point:	26 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	(20 °C) not determined (50 °C) not determined	
Density:	0.976 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Solubility in water:	Reacts with water.	

Miscibility with water:
immiscible
Partitioning coefficient n-octanol/water (log Pow):
not applicable for mixtures

Viscosity, kinematic:	7.3 mm2/s (23 °C)	
	(40 °C) No data available.	
Flow time:	> 30 s (23 °C)	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs

may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Virtually nontoxic by inhalation.

Symptoms

aspiration pneumonia allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on available data, the classification criteria are not met.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. Harmful to aquatic life with long lasting effects. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: isobutyl acetate
Elimination information:
74 % BOD of the ThOD (10 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, domestic sewage, non-adapted)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO_2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III

Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

50-20 0,5L Hardener Normal

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat. 3
Serious eye damage/eye irritation: Cat. 2A
Aspiration hazard: Cat. 1
Skin sensitization: Cat. 1
Specific target organ toxicity — single exposure: Cat. 3 (Vapours may cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat. 3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat. 3
Flammable liquids: Cat. 3
Acute toxicity: Cat. 5 (Inhalation - vapour)

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P242	Use only non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical attention.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent

Hazardous ingredients

ethylbenzene

Content (W/W): >= 1 % - < 2 %	Asp. Tox.: Cat. 1
CAS Number: 100-41-4	Flam. Liq.: Cat. 2
	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	STOT RE (Auditory organ): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

2-butoxyethyl acetate

Content (W/W): >= 3 % - < 5 % CAS Number: 112-07-2	Flam. Liq.: Cat. 4 Acute Tox.: Cat. 4 (oral) Acute Tox.: Cat. 4 (dermal) Aquatic Acute: Cat. 3

n-Butyl acetate

Content (W/W): >= 25 % - < 30 % CAS Number: 123-86-4	Flam. Liq.: Cat. 3 STOT SE: Cat. 3 (drowsiness and dizziness) Aquatic Acute: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 12.5 % - < 15 % CAS Number: 763-69-9	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Aquatic Acute: Cat. 3 Acute Tox.: Cat. 5 (dermal)

xylene

Content (W/W): >= 7 % - < 10 % CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

4-toluenesulphonyl isocyanate

Content (W/W): >= 0.1 % - < 0.2 % CAS Number: 4083-64-1	Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2A Resp. Sens.: Cat. 1 STOT SE: Cat. 3 (irr. to respiratory syst.) Aquatic Acute: Cat. 3

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 30 % - < 50 % CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - dust) Acute Tox.: Cat. 4 (Inhalation - vapour) Skin Sens.: Cat. 1 STOT SE: Cat. 3 (irr. to respiratory syst.)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: Eye irritation, aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: Stainless steel 1.4301 (V2), Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container dry. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 434 mg/m3 ; 100 ppm (OEL (NZ))
STEL value 543 mg/m3 ; 125 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 100 ppm (ACGIHTLV)
STEL value 150 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

4-toluenesulphonyl isocyanate, 4083-64-1;
TWA value 0.02 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. full face mask with AB2P3 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	of hydrocarbons	
pH value:	substance/mixture is non-polar/aprotic	
Melting point:	not determined	
onset of boiling:	135.00 °C	
Flash point:	> 34 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Self heating ability:	It is not a substance capable of spontaneous heating.	

Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	6.00 hPa (20 °C)	(calculated)
	(50 °C) not determined	
Density:	0.996 g/cm3 (20 °C)	
Miscibility with water:	immiscible	
Viscosity, kinematic:	6.6 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 29 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the

preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Virtually nontoxic by inhalation.

Information on: ethylbenzene
Experimental/calculated data:
LD50 rat (oral): 3,500 mg/kg
Literature data.

Information on: 2-butoxyethyl acetate
Experimental/calculated data:
LD50 rat (oral): approx. 1,880 mg/kg (OECD Guideline 401)

Information on: Ethyl 3-ethoxypropionate
Experimental/calculated data:
LD50 rat (oral): 4,309 mg/kg (OECD Guideline 401)

Information on: xylene
Experimental/calculated data:
LD50 rat (oral): 3,523 mg/kg (similar to OECD guideline 401)

Information on: ethylbenzene
Experimental/calculated data:
LD50 rabbit (dermal): 15,354 mg/kg
Literature data.

Information on: 2-butoxyethyl acetate
Experimental/calculated data:
LD50 rabbit (dermal): approx. 1,500 mg/kg

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Assessment of STOT single:
Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: 4-toluenesulphonyl isocyanate
Elimination information:
86 % BOD of the ThOD (28 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Observe national and local legal requirements.
No disposal via sewage or waste water systems.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

Packing group:	III
ID number:	UN 1866
Transport hazard class(es):	3
Proper shipping name:	RESIN SOLUTION

Further information

Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

Packing group:	III
ID number:	UN 1866
Transport hazard class(es):	3
Marine pollutant:	NO
Proper shipping name:	RESIN SOLUTION

Air transport
IATA/ICAO

Packing group:	III
ID number:	UN 1866
Transport hazard class(es):	3
Proper shipping name:	RESIN SOLUTION

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components. Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-20 1L Hardener Normal

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat.3
Serious eye damage/eye irritation: Cat.2A
Aspiration hazard: Cat.1
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (Vapours may cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Flammable liquids: Cat.3
Acute toxicity: Cat.4 (Inhalation - vapour)
Acute toxicity: Cat.5 (Inhalation - vapour)

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical attention.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 30 % - < 50 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

n-Butyl acetate

Content (W/W): >= 25 % - < 30 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 15 % - < 20 % CAS Number: 763-69-9	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Aquatic Acute: Cat. 3 Acute Tox.: Cat. 5 (dermal)

xylene

Content (W/W): >= 7 % - < 10 % CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

HDI-Oligomer(Trimer)

Content (W/W): >= 7 % - < 10 % CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - dust) Acute Tox.: Cat. 4 (Inhalation - vapour) Skin Sens.: Cat. 1 STOT SE: Cat. 3 (irr. to respiratory syst.)

2-butoxyethyl acetate

Content (W/W): >= 3 % - < 5 % CAS Number: 112-07-2	Flam. Liq.: Cat. 4 Acute Tox.: Cat. 4 (oral) Acute Tox.: Cat. 4 (dermal) Aquatic Acute: Cat. 3

ethylbenzene

Content (W/W): >= 1 % - < 2 % CAS Number: 100-41-4	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) STOT RE (Auditory organ): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

4-methylpentan-2-one

Content (W/W): >= 0.5 % - < 1 % CAS Number: 108-10-1	Asp. Tox.: Cat. 2 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Eye Dam./Irrit.: Cat. 2A Carc.: Cat. 2 STOT SE: Cat. 3 (drowsiness and dizziness) STOT SE: Cat. 3 (irr. to respiratory syst.)

isophorone diisocyanate (IPDI) polymer
Content (W/W): >= 0.5 % - < 1 % Skin Sens.: Cat. 1
CAS Number: 53880-05-0 STOT SE: Cat. 3 (irr. to respiratory syst.)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: Eye irritation, aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
nitrogen oxides

Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Stainless steel 1.4301 (V2), Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

4-methylpentan-2-one, 108-10-1;
STEL value 75 ppm (ACGIHTLV)
TWA value 20 ppm (ACGIHTLV)
TWA value 205 mg/m3 ; 50 ppm (OEL (NZ))
STEL value 307 mg/m3 ; 75 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

isophorone diisocyanate (IPDI) polymer, 53880-05-0;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

HDI-Oligomer(Trimer), 28182-81-2;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)

Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray booth operatives. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	of hydrocarbons	
pH value:	substance/mixture reacts violently with water	
Melting point:	not determined	
onset of boiling:	135 °C	(calculated)
Flash point:	> 34 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	6.00 hPa (20 °C)	(calculated)

	(50 °C) not determined	
Density:	0.996 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Solubility in water:	Reacts with water.	
Miscibility with water:	immiscible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Viscosity, kinematic:	6.6 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 29 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Virtually nontoxic by inhalation. Of moderate toxicity after short-term inhalation.

Information on: 4-methylpentan-2-one

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 11.6 mg/l 4 h (similar to OECD guideline 403)
The vapour was tested.

ATE (by inhalation): 11 mg/l
vapour

Information on: 2-butoxyethyl acetate

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 400 ppm 4 h (OECD Guideline 403)
No mortality was observed. Highest concentration technically achievable. The vapour was tested.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Symptoms

Eye irritation aspiration pneumonia allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:

The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for	None known

user:

15. Regulatory Information

Other regulations

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-20 2,5L Hardener Normal

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat.3
Serious eye damage/eye irritation: Cat.2A
Aspiration hazard: Cat.1
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (Vapours may cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Flammable liquids: Cat.3
Acute toxicity: Cat.4 (Inhalation - vapour)
Acute toxicity: Cat.5 (Inhalation - vapour)

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical attention.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 30 % - < 50 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

n-Butyl acetate

Content (W/W): >= 25 % - < 30 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 15 % - < 20 % CAS Number: 763-69-9	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Aquatic Acute: Cat. 3 Acute Tox.: Cat. 5 (dermal)

xylene

Content (W/W): >= 7 % - < 10 % CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

HDI-Oligomer(Trimer)

Content (W/W): >= 7 % - < 10 % CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - dust) Acute Tox.: Cat. 4 (Inhalation - vapour) Skin Sens.: Cat. 1 STOT SE: Cat. 3 (irr. to respiratory syst.)

2-butoxyethyl acetate

Content (W/W): >= 3 % - < 5 % CAS Number: 112-07-2	Flam. Liq.: Cat. 4 Acute Tox.: Cat. 4 (oral) Acute Tox.: Cat. 4 (dermal) Aquatic Acute: Cat. 3

ethylbenzene

Content (W/W): >= 1 % - < 2 % CAS Number: 100-41-4	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) STOT RE (Auditory organ): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

4-methylpentan-2-one

Content (W/W): >= 0.5 % - < 1 % CAS Number: 108-10-1	Asp. Tox.: Cat. 2 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Eye Dam./Irrit.: Cat. 2A Carc.: Cat. 2 STOT SE: Cat. 3 (drowsiness and dizziness) STOT SE: Cat. 3 (irr. to respiratory syst.)

isophorone diisocyanate (IPDI) polymer

Content (W/W): >= 0.5 % - < 1 %	Skin Sens.: Cat. 1
CAS Number: 53880-05-0	STOT SE: Cat. 3 (irr. to respiratory syst.)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: Eye irritation, aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
nitrogen oxides

Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Stainless steel 1.4301 (V2), Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

4-methylpentan-2-one, 108-10-1;
STEL value 75 ppm (ACGIHTLV)
TWA value 20 ppm (ACGIHTLV)
TWA value 205 mg/m3 ; 50 ppm (OEL (NZ))
STEL value 307 mg/m3 ; 75 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

isophorone diisocyanate (IPDI) polymer, 53880-05-0;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

HDI-Oligomer(Trimer), 28182-81-2;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)

Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray booth operatives. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	of hydrocarbons	
pH value:	substance/mixture reacts violently with water	
Melting point:	not determined	
onset of boiling:	135 °C	(calculated)
Flash point:	> 34 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	6.00 hPa (20 °C)	(calculated)

	(50 °C) not determined	
Density:	0.996 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Solubility in water:	Reacts with water.	
Miscibility with water:	immiscible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Viscosity, kinematic:	6.6 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 29 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Virtually nontoxic by inhalation. Of moderate toxicity after short-term inhalation.

Information on: 4-methylpentan-2-one

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 11.6 mg/l 4 h (similar to OECD guideline 403)
The vapour was tested.

ATE (by inhalation): 11 mg/l
vapour

Information on: 2-butoxyethyl acetate

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 400 ppm 4 h (OECD Guideline 403)
No mortality was observed. Highest concentration technically achievable. The vapour was tested.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Symptoms

Eye irritation aspiration pneumonia allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:

The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for	None known

user:

15. Regulatory Information

Other regulations

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-20 2,5L 2K Hardener Normal ANZ

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat.3
Serious eye damage/eye irritation: Cat.2A
Aspiration hazard: Cat.1
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (Vapours may cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Flammable liquids: Cat.3
Acute toxicity: Cat.4 (Inhalation - vapour)
Acute toxicity: Cat.5 (Inhalation - vapour)

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical attention.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 30 % - < 50 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

n-Butyl acetate

Content (W/W): >= 25 % - < 30 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 15 % - < 20 % CAS Number: 763-69-9	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Aquatic Acute: Cat. 3 Acute Tox.: Cat. 5 (dermal)

xylene

Content (W/W): >= 7 % - < 10 % CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

HDI-Oligomer(Trimer)

Content (W/W): >= 7 % - < 10 % CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - dust) Acute Tox.: Cat. 4 (Inhalation - vapour) Skin Sens.: Cat. 1 STOT SE: Cat. 3 (irr. to respiratory syst.)

2-butoxyethyl acetate

Content (W/W): >= 3 % - < 5 % CAS Number: 112-07-2	Flam. Liq.: Cat. 4 Acute Tox.: Cat. 4 (oral) Acute Tox.: Cat. 4 (dermal) Aquatic Acute: Cat. 3

ethylbenzene

Content (W/W): >= 1 % - < 2 % CAS Number: 100-41-4	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) STOT RE (Auditory organ): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

4-methylpentan-2-one

Content (W/W): >= 0.5 % - < 1 % CAS Number: 108-10-1	Asp. Tox.: Cat. 2 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Eye Dam./Irrit.: Cat. 2A Carc.: Cat. 2 STOT SE: Cat. 3 (drowsiness and dizziness) STOT SE: Cat. 3 (irr. to respiratory syst.)

isophorone diisocyanate (IPDI) polymer

Content (W/W): >= 0.5 % - < 1 %	Skin Sens.: Cat. 1
CAS Number: 53880-05-0	STOT SE: Cat. 3 (irr. to respiratory syst.)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: Eye irritation, aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
nitrogen oxides

Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Stainless steel 1.4301 (V2), Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

4-methylpentan-2-one, 108-10-1;
STEL value 75 ppm (ACGIHTLV)
TWA value 20 ppm (ACGIHTLV)
TWA value 205 mg/m3 ; 50 ppm (OEL (NZ))
STEL value 307 mg/m3 ; 75 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

isophorone diisocyanate (IPDI) polymer, 53880-05-0;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

HDI-Oligomer(Trimer), 28182-81-2;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)

Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray booth operatives. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	of hydrocarbons	
pH value:	substance/mixture reacts violently with water	
Melting point:	not determined	
onset of boiling:	135 °C	(calculated)
Flash point:	> 34 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	6.00 hPa (20 °C)	(calculated)

	(50 °C) not determined	
Density:	0.996 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Solubility in water:	Reacts with water.	
Miscibility with water:	immiscible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Viscosity, kinematic:	6.6 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 29 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Virtually nontoxic by inhalation. Of moderate toxicity after short-term inhalation.

Information on: 4-methylpentan-2-one

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 11.6 mg/l 4 h (similar to OECD guideline 403)
The vapour was tested.

ATE (by inhalation): 11 mg/l
vapour

Information on: 2-butoxyethyl acetate

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 400 ppm 4 h (OECD Guideline 403)
No mortality was observed. Highest concentration technically achievable. The vapour was tested.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Symptoms

Eye irritation aspiration pneumonia allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:

The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for	None known

user:

15. Regulatory Information

Other regulations

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-30 1L Hardener Slow

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat.5 (dermal)
Acute toxicity: Cat.5 (Inhalation - vapour)
Skin corrosion/irritation: Cat.3
Serious eye damage/eye irritation: Cat.2A
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Specific target organ toxicity — single exposure: Cat.3 (May cause drowsiness and dizziness.)
Specific target organ toxicity — repeated exposure: Cat.2
Hazardous to the aquatic environment - acute: Cat.3
Flammable liquids: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

H226	Flammable liquid and vapour.
H313	May be harmful in contact with skin.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust or mist.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P312	IF INHALED: Call a POISON CENTER or physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical attention.
P314	Get medical advice/attention if you feel unwell.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent

Hazardous ingredients

2-butoxyethyl acetate

Content (W/W): >= 30 % - < 50 %	Flam. Liq.: Cat. 4
CAS Number: 112-07-2	Acute Tox.: Cat. 4 (oral)
	Acute Tox.: Cat. 4 (dermal)
	Aquatic Acute: Cat. 3

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 30 % - < 50 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

n-Butyl acetate

Content (W/W): >= 20 % - < 25 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

Benzoic acid

Content (W/W): >= 1 % - < 2 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 65-85-0	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT RE (Lung): Cat. 1 (by inhalation)

4-toluenesulphonyl isocyanate

Content (W/W): >= 0.2 % - < 0.3 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 4083-64-1	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2A
	Resp. Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Acute: Cat. 3

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

Note to physician:
Symptoms: Eye irritation, allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

4-toluenesulphonyl isocyanate, 4083-64-1;
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Biological Exposure Indices:
No data available.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. full face mask with AB2P3 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).

Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	of hydrocarbons	
pH value:	substance/mixture is non-polar/aprotic	
Melting point:	not determined	
onset of boiling:	135 °C	(calculated)
Flash point:	> 40 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	

Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	6.00 hPa (20 °C)	(calculated)
	(50 °C) not determined	
Density:	1.011 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Miscibility with water:	immiscible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Viscosity, kinematic:	6.6 mm2/s (23 °C)	
	(40 °C) No data available.	
Flow time:	> 29 s (23 °C)	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Virtually nontoxic by inhalation. Of low toxicity after short-term skin contact.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Information on: 2-butoxyethyl acetate

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 400 ppm 4 h (OECD Guideline 403)
No mortality was observed. Highest concentration technically achievable. The vapour was tested.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Information on: 2-butoxyethyl acetate

Acute dermal toxicity

Experimental/calculated data:
LD50 rabbit (dermal): approx. 1,500 mg/kg

Symptoms

Eye irritation allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness
Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EWG, C.4-D) (aerobic, activated sludge, domestic)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: 4-toluenesulphonyl isocyanate
Elimination information:
86 % BOD of the ThOD (28 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT RELATED MATERIAL
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT RELATED MATERIAL
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT RELATED MATERIAL
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
A certified handler is not required for the handling of this substance.
Tracking requirements do not apply to this substance.

HSNO Approval Number HSR002662

Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

BASF Safety data sheet
Date / Revised: 11.04.2023 Version: 6.0
Product: **50-45 0,5L 2K Activator**

(50507477/SDS_GEN_NZ/EN)
Date of print: 12.04.2023

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-45 0,5L 2K Activator

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat.4 (Inhalation - vapour)
Skin corrosion/irritation: Cat.3
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Flammable liquids: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

H226	Flammable liquid and vapour.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent

Hazardous ingredients

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 75 % - <= 100 %	Acute Tox.: Cat. 4 (Inhalation - dust)
	Acute Tox.: Cat. 4 (Inhalation - vapour)
CAS Number: 28182-81-2	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

n-Butyl acetate

Content (W/W): >= 15 % - < 20 %	Flam. Liq.: Cat. 3
CAS Number: 123-86-4	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

xylene

Content (W/W): >= 5 % - < 7 %	Asp. Tox.: Cat. 1
CAS Number: 1330-20-7	Flam. Liq.: Cat. 3
	Acute Tox.: Cat. 5 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2B
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	STOT RE (Central nervous system, Liver, Kidney): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
If symptoms persist, seek medical advice. Contact lenses should be removed. Hold eyelids open and flush with copious amounts of clean, fresh water or a special eyewash solution.

On ingestion:
Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

Note to physician:
Symptoms: allergic symptoms, irritation of respiratory tract, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up

immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

n-Butyl acetate, 123-86-4;

STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	specific	
pH value:		
	substance/mixture is non-soluble (in water)	
Melting point:		
	not determined	
onset of boiling:	124 °C	(calculated)
Flash point:	> 37 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	11.00 hPa (20 °C)	(calculated)
	(50 °C) not determined	
Density:	1.081 g/cm3 (20 °C)	
Relative vapour density (air):		
	Heavier than air.	
Miscibility with water:		
	immiscible	
Partitioning coefficient n-octanol/water (log Pow):		
	not applicable for mixtures	
Viscosity, kinematic:	210.4 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 32 s	(DIN EN ISO 2431; 6 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Of moderate toxicity after short-term inhalation.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Symptoms

allergic symptoms irritation of respiratory tract Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading

to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

50-415 0,5L VOC Hardener Fast

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat. 4 (Inhalation - vapour)
Skin corrosion/irritation: Cat. 3
Serious eye damage/eye irritation: Cat. 2A
Aspiration hazard: Cat. 1
Skin sensitization: Cat. 1
Specific target organ toxicity — single exposure: Cat. 3 (irritating to respiratory system)
Specific target organ toxicity — repeated exposure: Cat. 2
Hazardous to the aquatic environment - acute: Cat. 3
Flammable liquids: Cat. 3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use only non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust or mist.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P337 + P313	If eye irritation persists: Get medical attention.
P314	Get medical advice/attention if you feel unwell.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent

Hazardous ingredients

Benzoic acid

Content (W/W): >= 1 % - < 2 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 65-85-0	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT RE (Lung): Cat. 1 (by inhalation)

ethylbenzene

Content (W/W): >= 1 % - < 2 % CAS Number: 100-41-4	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) STOT RE (Auditory organ): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

4-methylpentan-2-one

Content (W/W): >= 12.5 % - < 15 % CAS Number: 108-10-1	Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Eye Dam./Irrit.: Cat. 2A STOT SE: Cat. 3 (irr. to respiratory syst.) Acute Tox.: Cat. 5 (oral) Asp. Tox.: Cat. 2

n-Butyl acetate

Content (W/W): >= 12.5 % - < 15 % CAS Number: 123-86-4	Flam. Liq.: Cat. 3 STOT SE: Cat. 3 (drowsiness and dizziness) Aquatic Acute: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 2.5 % - < 3 % CAS Number: 763-69-9	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Aquatic Acute: Cat. 3 Acute Tox.: Cat. 5 (dermal)

xylene

Content (W/W): >= 7 % - < 10 % CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

4-toluenesulphonyl isocyanate

Content (W/W): >= 0.2 % - < 0.3 % CAS Number: 4083-64-1	Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2A Resp. Sens.: Cat. 1 STOT SE: Cat. 3 (irr. to respiratory syst.) Aquatic Acute: Cat. 3

Hexamethylen-1,6-diisocyanat Homopolymer	
Content (W/W): >= 50 % - < 75 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: Eye irritation, aspiration pneumonia, allergic symptoms, irritation of respiratory tract, skin irritation, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container dry. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 434 mg/m3 ; 100 ppm (OEL (NZ))
STEL value 543 mg/m3 ; 125 ppm (OEL (NZ))

4-methylpentan-2-one, 108-10-1;
STEL value 75 ppm (ACGIHTLV)
TWA value 20 ppm (ACGIHTLV)
STEL value 307 mg/m3 ; 75 ppm (OEL (NZ))
TWA value 205 mg/m3 ; 50 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 100 ppm (ACGIHTLV)
STEL value 150 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

4-toluenesulphonyl isocyanate, 4083-64-1;

TWA value 0.02 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. full face mask with AB2P3 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid
Colour:	colourless
Odour:	ester-like

pH value:	substance/mixture is non-polar/aprotic	
Melting point:	not determined	
onset of boiling:	114.00 °C	
Flash point:	> 26 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	21.50 hPa (20 °C)	(calculated)
	(50 °C) not determined	
Density:	1.008 g/cm3 (20 °C)	
Miscibility with water:	immiscible	
Viscosity, kinematic:	6.6 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 29 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Of moderate toxicity after short-term inhalation.

Information on: Benzoic acid
Experimental/calculated data:
LD50 mouse (oral): 2,250 mg/kg (similar to OECD guideline 401)

Information on: ethylbenzene
Experimental/calculated data:
LD50 rat (oral): 3,500 mg/kg
Literature data.

Information on: Ethyl 3-ethoxypropionate
Experimental/calculated data:
LD50 rat (oral): 4,309 mg/kg (OECD Guideline 401)

Information on: xylene
Experimental/calculated data:
LD50 rat (oral): 3,523 mg/kg (similar to OECD guideline 401)

Information on: ethylbenzene
Experimental/calculated data:
LD50 rabbit (dermal): 15,354 mg/kg
Literature data.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: 4-toluenesulphonyl isocyanate
Elimination information:
86 % BOD of the ThOD (28 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Observe national and local legal requirements.
No disposal via sewage or waste water systems.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

Packing group:	III
ID number:	UN 1263
Transport hazard class(es):	3
Proper shipping name:	PAINT

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

Packing group:	III
ID number:	UN 1263
Transport hazard class(es):	3
Marine pollutant:	NO
Proper shipping name:	PAINT

Air transport
IATA/ICAO

Packing group:	III
ID number:	UN 1263
Transport hazard class(es):	3
Proper shipping name:	PAINT

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components. Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

BASF Safety data sheet
Date / Revised: 29.01.2024 Version: 6.0
Product: **50-415 2,5L Clear Hardener Fast VOC**

(50491112/SDS_GEN_NZ/EN)
Date of print: 30.01.2024

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-415 2,5L Clear Hardener Fast VOC

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat.5 (oral)
Acute toxicity: Cat.4 (Inhalation - vapour)
Skin corrosion/irritation: Cat.3
Serious eye damage/eye irritation: Cat.2A
Aspiration hazard: Cat.1
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Specific target organ toxicity — single exposure: Cat.3 (May cause drowsiness and dizziness.)
Specific target organ toxicity — repeated exposure: Cat.2
Hazardous to the aquatic environment - acute: Cat.3
Flammable liquids: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H303	May be harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust or mist.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use non-sparking tools.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P337 + P313	If eye irritation persists: Get medical attention.
P314	Get medical advice/attention if you feel unwell.
P331	Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent

Hazardous ingredients

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 50 % - < 75 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

2-heptanone

Content (W/W): >= 12.5 % - < 15 % CAS Number: 110-43-0	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 4 (oral) Skin Corr./Irrit.: Cat. 3 STOT SE: Cat. 3 (drowsiness and dizziness) Aquatic Acute: Cat. 3

n-Butyl acetate

Content (W/W): >= 12.5 % - < 15 % CAS Number: 123-86-4	Flam. Liq.: Cat. 3 STOT SE: Cat. 3 (drowsiness and dizziness) Aquatic Acute: Cat. 3

xylene

Content (W/W): >= 7 % - < 10 % CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 3 % - < 5 % CAS Number: 763-69-9	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Aquatic Acute: Cat. 3 Acute Tox.: Cat. 5 (dermal)

ethylbenzene

Content (W/W): >= 1 % - < 2 % CAS Number: 100-41-4	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) STOT RE (Auditory organ): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3

Benzoic acid

Content (W/W): >= 1 % - < 2 % CAS Number: 65-85-0	Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 1 STOT RE (Lung): Cat. 1 (by inhalation)

4-toluenesulphonyl isocyanate

Content (W/W): >= 0.2 % - < 0.3 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 4083-64-1	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2A
	Resp. Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Acute: Cat. 3

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:
Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Keep at rest. Rinse mouth immediately with water.

Note to physician:
Symptoms: Eye irritation, aspiration pneumonia, allergic symptoms, dazed state, irritation of respiratory tract, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Hazards: If swallowed, in the event of vomiting, risk of product entering the lungs. When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5 - 35 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

2-heptanone, 110-43-0;
TWA value 50 ppm (ACGIHTLV)
TWA value 233 mg/m3 ; 50 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;
STEL value 150 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)
TWA value 713 mg/m3 ; 150 ppm (OEL (NZ))
STEL value 950 mg/m3 ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

4-toluenesulphonyl isocyanate, 4083-64-1;

TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. full face mask with AB2P3 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,7 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	ester-like	
pH value:	substance/mixture is non-polar/aprotic	
Melting point:	not determined	
onset of boiling:	114 °C	(calculated)
Flash point:	26 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self ignition:	Unspecified	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	21.50 hPa (20 °C) (50 °C) not determined	(calculated)
Density:	1.008 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air. Heavier than air.	
Solubility in water:	immiscible	
Miscibility with water:	immiscible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Viscosity, kinematic:	6.6 mm2/s (23 °C)	

	(40 °C) No data available.	
Flow time:	> 29 s (23 °C)	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Of moderate toxicity after short-term inhalation. Of low toxicity after single ingestion.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Information on: Benzoic acid

Acute oral toxicity

Experimental/calculated data:
LD50 mouse (oral): 2,250 mg/kg (similar to OECD guideline 401)

Information on: ethylbenzene

Acute oral toxicity

Experimental/calculated data:
LD50 rat (oral): 3,500 mg/kg
Literature data.

Information on: 2-heptanone

Acute oral toxicity

Experimental/calculated data:
LD50 rat (oral): approx. 1,600 mg/kg

Information on: Ethyl 3-ethoxypropionate

Acute oral toxicity

Experimental/calculated data:
LD50 rat (oral): 4,309 mg/kg (OECD Guideline 401)

Information on: xylene

Acute oral toxicity

Experimental/calculated data:
LD50 rat (oral): 3,523 mg/kg (similar to OECD guideline 401)

Information on: 2-heptanone

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 16.7 mg/l 4 h (OECD Guideline 403)
Mortality was observed. The vapour was tested.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Symptoms

Eye irritation aspiration pneumonia allergic symptoms dazed state irritation of respiratory tract dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:

The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: 2-heptanone
Elimination information:
69 % DOC reduction (28 d) (OECD Guideline 310) (aerobic, activated sludge, domestic, non-adapted)

Information on: n-Butyl acetate
Elimination information:
80 % BOD of the ThOD (5 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) (aerobic)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: 4-toluenesulphonyl isocyanate
Elimination information:
86 % BOD of the ThOD (28 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, activated sludge, domestic, non-adapted)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport

IATA/ICAO

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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Safety data sheet

BASF Safety data sheet
Date / Revised: 16.04.2023 Version: 6.0
Product: **50-420 2,5L VOC Hardener Normal**

(50400517/SDS_GEN_NZ/EN)
Date of print: 18.04.2023

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-420 2,5L VOC Hardener Normal

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat.4 (Inhalation - vapour)
Skin corrosion/irritation: Cat.3
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat.3
Hazardous to the aquatic environment - chronic: Cat.3
Flammable liquids: Cat.3
Specific target organ toxicity — single exposure: Cat.3 (Vapours may cause drowsiness and dizziness.)

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

H226	Flammable liquid and vapour.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent

Hazardous ingredients

Hexamethylen-1,6-diisocyanat Homopolymer
Content (W/W): >= 50 % - < 75 %
CAS Number: 28182-81-2

Acute Tox.: Cat. 4 (Inhalation - dust)
Acute Tox.: Cat. 4 (Inhalation - vapour)
Skin Sens.: Cat. 1
STOT SE: Cat. 3 (irr. to respiratory syst.)

2-heptanone
Content (W/W): >= 20 % - < 25 %
CAS Number: 110-43-0

Flam. Liq.: Cat. 3
Acute Tox.: Cat. 4 (Inhalation - vapour)
Acute Tox.: Cat. 4 (oral)
Skin Corr./Irrit.: Cat. 3
STOT SE: Cat. 3 (drowsiness and dizziness)
Aquatic Acute: Cat. 3

2-butoxyethyl acetate
Content (W/W): >= 7 % - < 10 %
CAS Number: 112-07-2

Flam. Liq.: Cat. 4
Acute Tox.: Cat. 4 (oral)
Acute Tox.: Cat. 4 (dermal)
Aquatic Acute: Cat. 3

1-methoxy-2-propylacetate
Content (W/W): >= 7 % - < 10 %
CAS Number: 108-65-6

Flam. Liq.: Cat. 3
STOT SE: Cat. 3 (drowsiness and dizziness)

Solventnaphtha (petroleum), light aromatic

Content (W/W): >= 3 % - < 5 % CAS Number: 64742-95-6	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 STOT SE: Cat. 3 (drowsiness and dizziness) STOT SE: Cat. 3 (irr. to respiratory syst.) Aquatic Chronic: Cat. 2

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
If symptoms persist, seek medical advice. Contact lenses should be removed. Hold eyelids open and flush with copious amounts of clean, fresh water or a special eyewash solution.

On ingestion:
Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

Note to physician:
Symptoms: allergic symptoms, dazed state, irritation of respiratory tract, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

8. Exposure controls and personal protection

Components with occupational exposure limits

2-heptanone, 110-43-0;
TWA value 50 ppm (ACGIHTLV)
TWA value 233 mg/m3 ; 50 ppm (OEL (NZ))

Solventnaphtha (petroleum), light aromatic, 64742-95-6;

Biological Exposure Indices:
No data available.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
butyl rubber gloves - material thickness: 0.5 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	ketone-like	
pH value:		
	substance/mixture is non-polar/aprotic	
Melting point:		
	not determined	
onset of boiling:		
	not determined	
Flash point:	45 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:		
	(20 °C)	
	not determined	
	(50 °C)	
	not determined	

No applicable information available.

No applicable information available.

Density: 1.014 g/cm3
(20 °C)

Relative vapour density (air):
Heavier than air.

Miscibility with water:
immiscible

Partitioning coefficient n-octanol/water (log Pow):
not applicable for mixtures

Viscosity, kinematic: 7.3 mm2/s
(20 °C)

(40 °C)
not determined

Flow time: > 30 s (DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Of moderate toxicity after short-term inhalation.

Information on: 2-heptanone

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 16.7 mg/l 4 h (OECD Guideline 403)
Mortality was observed. The vapour was tested.

Information on: 2-butoxyethyl acetate

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 400 ppm 4 h (OECD Guideline 403)
No mortality was observed. Highest concentration technically achievable. The vapour was tested.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Symptoms

allergic symptoms dazed state irritation of respiratory tract dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. Harmful to aquatic life with long lasting effects. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:

No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: 2-heptanone
Elimination information:
69 % DOC reduction (28 d) (OECD Guideline 310) (aerobic, activated sludge, domestic, non-adapted)

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

50-430 0,5L 2K Clear Hardener Slow VOC

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat. 4 (oral)
Acute toxicity: Cat. 4 (Inhalation - vapour)
Skin corrosion/irritation: Cat. 3
Serious eye damage/eye irritation: Cat. 2A
Skin sensitization: Cat. 1
Specific target organ toxicity — single exposure: Cat. 3 (irritating to respiratory system)
Specific target organ toxicity — repeated exposure: Cat. 2
Hazardous to the aquatic environment - acute: Cat. 3
Specific target organ toxicity — single exposure: Cat. 3 (Vapours may cause drowsiness and dizziness.)

Flammable liquids: Cat. 3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use only non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P270	Do not eat, drink or smoke when using this product.
P260	Do not breathe dust or mist.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P330	Rinse mouth
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P337 + P313	If eye irritation persists: Get medical attention.
P314	Get medical advice/attention if you feel unwell.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

HDI-Oligomer(Trimer)

Content (W/W): >= 50 % - < 75 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

2-heptanone

Content (W/W): >= 12.5 % - < 15 %	Flam. Liq.: Cat. 3
CAS Number: 110-43-0	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 4 (oral)
	Skin Corr./Irrit.: Cat. 3
	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

2-butoxyethyl acetate

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq.: Cat. 4
CAS Number: 112-07-2	Acute Tox.: Cat. 4 (oral)
	Acute Tox.: Cat. 4 (dermal)
	Aquatic Acute: Cat. 3

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq.: Cat. 3
CAS Number: 763-69-9	Acute Tox.: Cat. 5 (oral)
	Aquatic Acute: Cat. 3
	Acute Tox.: Cat. 5 (dermal)

1-methoxy-2-propylacetate

Content (W/W): >= 5 % - < 7 %	Flam. Liq.: Cat. 3
CAS Number: 108-65-6	STOT SE: Cat. 3 (drowsiness and dizziness)

Benzoic acid

Content (W/W): >= 1 % - < 2 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 65-85-0	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT RE (Lung): Cat. 1 (by inhalation)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: Eye irritation, allergic symptoms, dazed state, irritation of respiratory tract, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
nitrogen oxides
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Stove-lacquer RDL 50, Stove-lacquer R 78433, Stove-lacquer 79/14/3 (Müller/CH), Stove-lacquer EHD0022, Stove-lacquer KNS L-5X, Stove-lacquer Valspar HXR008F red, Stove-lacquer Vitalure 745, Stove-lacquer NOVOCAN S-G 500, Stove-lacquer C222A/C221A, Stainless steel 1.4301 (V2), Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

2-heptanone, 110-43-0;
TWA value 50 ppm (ACGIHTLV)
TWA value 233 mg/m3 ; 50 ppm (OEL (NZ))

HDI-Oligomer(Trimer), 28182-81-2;
STEL value 0.07 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
butyl rubber gloves - material thickness: 0.5 mm

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray

booth operatives. Ensure adequate ventilation. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	ester-like	
pH value:	substance/mixture reacts violently with water	
Melting point:	not determined	
onset of boiling:	141.00 °C	
Flash point:	23 °C	(ISO 3679)
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	3.00 hPa (20 °C)	(calculated)
	(50 °C) not determined	
Density:	1.033 g/cm3 (20 °C)	
Miscibility with water:	immiscible	
Viscosity, kinematic:	7.3 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	> 30 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Of moderate toxicity after short-term inhalation. Of moderate toxicity after single ingestion.

Information on: Benzoic acid
Experimental/calculated data:
LD50 mouse (oral): 2,250 mg/kg (similar to OECD guideline 401)

Information on: 2-heptanone
Experimental/calculated data:
LD50 rat (oral): approx. 1,600 mg/kg

Information on: 2-butoxyethyl acetate
Experimental/calculated data:
LD50 rat (oral): approx. 1,880 mg/kg (OECD Guideline 401)

Information on: Ethyl 3-ethoxypropionate
Experimental/calculated data:
LD50 rat (oral): 4,309 mg/kg (OECD Guideline 401)

Information on: 2-heptanone

Experimental/calculated data:
LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)
No mortality was observed.

Information on: 2-butoxyethyl acetate
Experimental/calculated data:
LD50 rabbit (dermal): approx. 1,500 mg/kg

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Assessment of STOT single:
Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: 2-heptanone
Elimination information:
69 % DOC reduction (28 d) (OECD Guideline 310) (aerobic, activated sludge, domestic, non-adapted)

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic)

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

Packing group:	III
ID number:	UN 1263
Transport hazard class(es):	3
Proper shipping name:	PAINT

Further information

Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

Packing group:	III
ID number:	UN 1263
Transport hazard class(es):	3
Marine pollutant:	NO
Proper shipping name:	PAINT

Air transport
IATA/ICAO

Packing group:	III
ID number:	UN 1263
Transport hazard class(es):	3
Proper shipping name:	PAINT

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components. Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
50-510 0,5L Ambient Clear Hardener

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat.4 (Inhalation - vapour)
Skin corrosion/irritation: Cat.3
Serious eye damage/eye irritation: Cat.2A
Skin sensitization: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Specific target organ toxicity — repeated exposure: Cat.2
Hazardous to the aquatic environment - chronic: Cat.3
Flammable liquids: Cat.4

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

H227	Combustible liquid.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash contaminated body parts thoroughly after handling.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust or mist.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P337 + P313	If eye irritation persists: Get medical attention.
P314	Get medical advice/attention if you feel unwell.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

polyisocyanate, organic solvent

Hazardous ingredients

Hexamethylen-1,6-diisocyanat Homopolymer

Content (W/W): >= 75 % - <= 100 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Skin Sens.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)

Propanoic acid, 3-ethoxy-, ethyl ester

Content (W/W): >= 5 % - < 7 %	Flam. Liq.: Cat. 3
CAS Number: 763-69-9	Acute Tox.: Cat. 5 (oral)
	Aquatic Acute: Cat. 3
	Acute Tox.: Cat. 5 (dermal)

2-heptanone

Content (W/W): >= 3 % - < 5 %	Flam. Liq.: Cat. 3
CAS Number: 110-43-0	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 4 (oral)
	Skin Corr./Irrit.: Cat. 3
	STOT SE: Cat. 3 (drowsiness and dizziness)
	Aquatic Acute: Cat. 3

Solventnaphtha (petroleum), light aromatic

Content (W/W): >= 3 % - < 5 %	Asp. Tox.: Cat. 1
CAS Number: 64742-95-6	Flam. Liq.: Cat. 3
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Chronic: Cat. 2

isophorone diisocyanate (IPDI) polymer

Content (W/W): >= 2.5 % - < 3 %	Skin Sens.: Cat. 1
CAS Number: 53880-05-0	STOT SE: Cat. 3 (irr. to respiratory syst.)

2-butoxyethyl acetate

Content (W/W): >= 1 % - < 2 % CAS Number: 112-07-2	Flam. Liq.: Cat. 4 Acute Tox.: Cat. 4 (oral) Acute Tox.: Cat. 4 (dermal) Aquatic Acute: Cat. 3

Benzoic acid

Content (W/W): >= 1 % - < 2 % CAS Number: 65-85-0	Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 1 STOT RE (Lung): Cat. 1 (by inhalation)

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
Flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Immediate medical attention required.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Note to physician:
Symptoms: Eye irritation, allergic symptoms, irritation of respiratory tract, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13). Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

8. Exposure controls and personal protection

Components with occupational exposure limits

2-heptanone, 110-43-0;
TWA value 50 ppm (ACGIHTLV)
TWA value 233 mg/m3 ; 50 ppm (OEL (NZ))

isophorone diisocyanate (IPDI) polymer, 53880-05-0;
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
TWA value 0.02 mg/m3 (OEL (NZ)), Inhalable fraction and vapor
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Solventnaphtha (petroleum), light aromatic, 64742-95-6;

Biological Exposure Indices:
No data available.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
butyl rubber gloves - material thickness: 0.5 mm
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
Suitable materials against splashes (recommended: At least protective index 1, corresponding > 10 minutes of permeation time according to EN ISO 374-1)

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid
Colour:	colourless
Odour:	ester-like
pH value:	
	substance/mixture is non-soluble (in water)

Melting point:	not determined	
onset of boiling:	150 °C	(calculated)
Flash point:	64 °C	(ISO 3679)
Flammability (solid/gas):	Combustible liquid.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	6.00 hPa (20 °C)	(calculated)
	(50 °C) not determined	
Density:	1.110 g/cm3 (20 °C)	
Relative vapour density (air):	Heavier than air.	
Solubility in water:	Reacts with water.	
Miscibility with water:	immiscible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Viscosity, kinematic:	80.3 mm2/s (23 °C)	
	(40 °C) No data available.	
Flow time:	> 60 s (23 °C)	(DIN EN ISO 2431; 4 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct contact with water. Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Of moderate toxicity after short-term inhalation.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Information on: 2-heptanone

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 16.7 mg/l 4 h (OECD Guideline 403)
Mortality was observed. The vapour was tested.

Information on: 2-butoxyethyl acetate

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 400 ppm 4 h (OECD Guideline 403)
No mortality was observed. Highest concentration technically achievable. The vapour was tested.

Information on: Hexamethylen-1,6-diisocyanat Homopolymer

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 1.500 mg/l 4.0 h (OECD Guideline 403)
An aerosol was tested.

Symptoms

Eye irritation allergic symptoms irritation of respiratory tract Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
The liquid splashed in the eyes may cause irritation and reversible damage. Eye contact causes irritation. Skin contact causes slight irritation.

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life with long lasting effects. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: 2-heptanone
Elimination information:
69 % DOC reduction (28 d) (OECD Guideline 310) (aerobic, activated sludge, domestic, non-adapted)

Information on: 2-butoxyethyl acetate
Elimination information:
88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EWG, C.4-D) (aerobic, activated sludge, domestic)

Information on: Ethyl 3-ethoxypropionate
Elimination information:
100 % CO2 formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

100 % CO2 formation relative to the theoretical value (18 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) (aerobic)

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.
Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.
Residues in empty containers should be neutralised with decontaminant (see section 6).

14. Transport Information

Domestic transport:

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Sea transport
IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable Marine pollutant: no
Special precautions for user	None known

Air transport
IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
Proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable

Environmental hazards:	Not applicable
Special precautions for user	None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
A certified handler is not required for the handling of this substance.
Tracking requirements do not apply to this substance.

HSNO Approval Number HSR002657
Surface Coatings and Colourants (Combustible) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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Safety data sheet

BASF Safety data sheet
Date / Revised: 30.03.2024 Version: 4.0
Product: **55-10 1L EP Hardener**

(50608954/SDS_GEN_NZ/EN)
Date of print: 01.04.2024

1. Substance/preparation and manufacturer/supplier identification

Product name:
55-10 1L EP Hardener

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat.2
Serious eye damage/eye irritation: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Specific target organ toxicity — single exposure: Cat.3 (May cause drowsiness and dizziness.)
Specific target organ toxicity — repeated exposure: Cat.2
Hazardous to the aquatic environment - acute: Cat.2
Hazardous to the aquatic environment - chronic: Cat.3
Flammable liquids: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust or mist.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P310	Immediately call a POISON CENTER or physician.
P332 + P313	If skin irritation occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent, polyamide

Hazardous ingredients

xylene

Content (W/W): >= 20 % - < 25 % CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Irrit.: Cat. 2 Eye Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) Aquatic Chronic: Cat. 3 STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2

1-methoxypropan-2-ol

Content (W/W): >= 10 % - < 12.5 % CAS Number: 107-98-2	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) STOT SE: Cat. 3 (drowsiness and dizziness)

isobutyl alcohol

Content (W/W): >= 7 % - < 10 % CAS Number: 78-83-1	Asp. Tox.: Cat. 2 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Acute Tox.: Cat. 5 (dermal) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 1 STOT SE: Cat. 3 (drowsiness and dizziness) STOT SE: Cat. 3 (irr. to respiratory syst.)

ethylbenzene

Content (W/W): >= 3 % - < 5 %	Asp. Tox.: Cat. 1
CAS Number: 100-41-4	Flam. Liq.: Cat. 2
	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	STOT RE (Auditory organ): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

n-butanol

Content (W/W): >= 3 % - < 5 %	Flam. Liq.: Cat. 3
CAS Number: 71-36-3	Acute Tox.: Cat. 5 (oral)
	Acute Tox.: Cat. 5 (dermal)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)

1-Propanamine, 3-(trimethoxysilyl)-

Content (W/W): >= 2.5 % - < 3 %	Flam. Liq.: Cat. 4
CAS Number: 13822-56-5	Acute Tox.: Cat. 5 (oral)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1

Solventnaphtha (petroleum), light aromatic

Content (W/W): >= 2 % - < 2.5 %	Asp. Tox.: Cat. 1
CAS Number: 64742-95-6	Flam. Liq.: Cat. 3
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Chronic: Cat. 2

2,2'-iminodi(ethylamine)

Content (W/W): >= 0.2 % - < 0.3 %	Acute Tox.: Cat. 4 (oral)
CAS Number: 111-40-0	Acute Tox.: Cat. 2 (Inhalation - mist)
	Acute Tox.: Cat. 4 (dermal)
	Skin Corr.: Cat. 1B
	Eye Dam.: Cat. 1
	Skin Sens.: Cat. 1B
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Acute: Cat. 3

Amines, polyethylene poly-, triethylenetetramine fraction

Content (W/W): >= 0.1 % - < 0.2 %	Acute Tox.: Cat. 4 (oral)
CAS Number: 112-24-3	Acute Tox.: Cat. 4 (dermal)
	Eye Dam./Irrit.: Cat. 1
	Skin Sens.: Cat. 1
	Aquatic Chronic: Cat. 3
	Skin Corr./Irrit.: Cat. 1B

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

Note to physician:
Symptoms: allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness,
Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Polyethylenetherephtalate (PET), Polypropylene (PP), Stainless steel 1.4301 (V2), Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

n-butanol, 71-36-3;
TWA value 20 ppm (ACGIHTLV)
Skin Designation (OEL (NZ))
Skin absorption can be significant.
CLV 150 mg/m3 ; 50 ppm (OEL (NZ))

isobutyl alcohol, 78-83-1;
TWA value 50 ppm (ACGIHTLV)
TWA value 152 mg/m3 ; 50 ppm (OEL (NZ))

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

1-methoxypropan-2-ol, 107-98-2;
TWA value 50 ppm (ACGIHTLV)
STEL value 100 ppm (ACGIHTLV)
TWA value 369 mg/m3 ; 100 ppm (OEL (NZ))
STEL value 553 mg/m3 ; 150 ppm (OEL (NZ))

2,2'-iminodi(ethylamine), 111-40-0;
TWA value 1 ppm (ACGIHTLV)
TWA value 4.2 mg/m3 ; 1 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

Solventnaphtha (petroleum), light aromatic, 64742-95-6;

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A1P2 class combination filter

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,35 mm

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid
Colour:	brown
Odour:	amine-like
pH value:	
	substance/mixture is non-polar/aprotic

Melting point:		
	not determined	
onset of boiling:		
	not determined	
Flash point:	> 23 °C	(ISO 3679)
Evaporation rate:		
	not determined	
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self heating ability:	It is not a material capable of spontaneous heating	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:		
	(20 °C) not determined	
	(50 °C) not determined	
Density:	0.931 g/cm3 (20 °C)	
Relative vapour density (air):		
	Heavier than air.	
Solubility in water:	not determined	
Miscibility with water:		
	immiscible	
Partitioning coefficient n-octanol/water (log Pow):		
	not applicable for mixtures	
Viscosity, dynamic:		
	No applicable information available.	
Viscosity, kinematic:	84.6 mm2/s (23 °C)	
	(40 °C) No data available.	
Flow time:	> 63 s (23 °C)	(DIN EN ISO 2431; 4 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke, oxides of nitrogen may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Based on available data, the classification criteria are not met.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Symptoms

allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
Skin contact causes irritation. May cause severe damage to the eyes.

Respiratory/Skin sensitization

Assessment of sensitization:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life with long lasting effects. Toxic to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: 2,2'-iminodi(ethylamine)
Elimination information:
87 % BOD of the ThOD (21 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, activated sludge, domestic, non-adapted)

50 % Specific analysis (30 d) (OECD Guideline 307) (aerobic, soil)

50 % Specific analysis (20 - 28 d) (OECD Guideline 309) (aerobic, aerobic microorganisms)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1263
UN proper shipping name:	PAINT
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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Safety data sheet

BASF Safety data sheet
Date / Revised: 01.02.2024 Version: 7.0
Product: **55-10 1L.EP Hardener**

(53005819/SDS_GEN_NZ/EN)
Date of print: 02.02.2024

1. Substance/preparation and manufacturer/supplier identification

Product name:
55-10 1L.EP Hardener

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Skin corrosion/irritation: Cat.2
Serious eye damage/eye irritation: Cat.1
Specific target organ toxicity — single exposure: Cat.3 (May cause drowsiness and dizziness.)
Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)
Specific target organ toxicity — repeated exposure: Cat.2
Hazardous to the aquatic environment - acute: Cat.2
Hazardous to the aquatic environment - chronic: Cat.3
Flammable liquids: Cat.3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust or mist.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P310	Immediately call a POISON CENTER or physician.
P332 + P313	If skin irritation occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent, polyamide

Hazardous ingredients

xylene

Content (W/W): >= 25 % - < 30 %	Asp. Tox.: Cat. 1
CAS Number: 1330-20-7	Flam. Liq.: Cat. 3
	Acute Tox.: Cat. 5 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 2B
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	STOT RE (Central nervous system, Liver, Kidney): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

1-methoxypropan-2-ol

Content (W/W): >= 10 % - < 12.5 %	Flam. Liq.: Cat. 3
	Acute Tox.: Cat. 5 (oral)
CAS Number: 107-98-2	STOT SE: Cat. 3 (drowsiness and dizziness)

isobutyl alcohol

Content (W/W): >= 7 % - < 10 %	Asp. Tox.: Cat. 2
CAS Number: 78-83-1	Flam. Liq.: Cat. 3
	Acute Tox.: Cat. 5 (oral)
	Acute Tox.: Cat. 5 (dermal)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)

ethylbenzene

Content (W/W): >= 3 % - < 5 %	Asp. Tox.: Cat. 1
CAS Number: 100-41-4	Flam. Liq.: Cat. 2
	Acute Tox.: Cat. 4 (Inhalation - vapour)
	Acute Tox.: Cat. 5 (oral)
	STOT RE (Auditory organ): Cat. 2
	Aquatic Acute: Cat. 2
	Aquatic Chronic: Cat. 3

n-butanol

Content (W/W): >= 3 % - < 5 %	Flam. Liq.: Cat. 3
CAS Number: 71-36-3	Acute Tox.: Cat. 5 (oral)
	Acute Tox.: Cat. 5 (dermal)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)

Solventnaphtha (petroleum), light aromatic

Content (W/W): >= 2 % - < 2.5 %	Asp. Tox.: Cat. 1
CAS Number: 64742-95-6	Flam. Liq.: Cat. 3
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Chronic: Cat. 2

2,2'-iminodi(ethylamine)

Content (W/W): >= 0.2 % - < 0.3 %	Acute Tox.: Cat. 4 (oral)
CAS Number: 111-40-0	Acute Tox.: Cat. 2 (Inhalation - mist)
	Acute Tox.: Cat. 4 (dermal)
	Skin Corr./Irrit.: Cat. 1B
	Eye Dam./Irrit.: Cat. 1
	Skin Sens.: Cat. 1B
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Acute: Cat. 3

Amines, polyethylene poly-, triethylenetetramine fraction

Content (W/W): >= 0.1 % - < 0.2 %	Acute Tox.: Cat. 4 (oral)
CAS Number: 112-24-3	Acute Tox.: Cat. 4 (dermal)
	Eye Dam./Irrit.: Cat. 1
	Skin Sens.: Cat. 1
	Aquatic Chronic: Cat. 3
	Skin Corr./Irrit.: Cat. 1B

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

Note to physician:
Symptoms: allergic symptoms, dazed state, irritation of respiratory tract, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours.For non-emergency personnel:Use personal protective clothing.Ensure adequate ventilation.Keep away from sources of ignition.For emergency responders:Advice on product handling can be found in sections 7 and 8 of this safety data sheet.Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways.If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: tinned carbon steel (Tinplate), Carbon steel (Iron), Stainless steel 1.4301 (V2), Polypropylene (PP), Polyethylenetherephtalate (PET), Low density polyethylene (LDPE), High density polyethylene (HDPE), Stove-lacquer C222A/C221A, Stove-lacquer NOVOCAN S-G 500, Stove-lacquer Vitalure 745, Stove-lacquer Valspar HXR008F red, Stove-lacquer KNS L-5X, Stove-lacquer EHD0022, Stove-lacquer 79/14/3 (Müller/CH), Stove-lacquer R 78433, Stove-lacquer RDL 50
Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. Store protected against freezing.

Storage stability:
Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

n-butanol, 71-36-3;
TWA value 20 ppm (ACGIHTLV)
Skin Designation (OEL (NZ))
Skin absorption can be significant.
CLV 150 mg/m3 ; 50 ppm (OEL (NZ))

isobutyl alcohol, 78-83-1;
TWA value 50 ppm (ACGIHTLV)
TWA value 152 mg/m3 ; 50 ppm (OEL (NZ))

ethylbenzene, 100-41-4;
TWA value 20 ppm (ACGIHTLV)
TWA value 88 mg/m3 ; 20 ppm (OEL (NZ))
STEL value 176 mg/m3 ; 40 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.

1-methoxypropan-2-ol, 107-98-2;
TWA value 50 ppm (ACGIHTLV)
STEL value 100 ppm (ACGIHTLV)
TWA value 369 mg/m3 ; 100 ppm (OEL (NZ))
STEL value 553 mg/m3 ; 150 ppm (OEL (NZ))

2,2'-iminodi(ethylamine), 111-40-0;
TWA value 1 ppm (ACGIHTLV)
TWA value 4.2 mg/m3 ; 1 ppm (OEL (NZ))
Skin Designation (OEL (NZ))
Skin absorption can be significant.
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption

xylene, 1330-20-7;
TWA value 20 ppm (ACGIHTLV)
TWA value 217 mg/m3 ; 50 ppm (OEL (NZ))

Solventnaphtha (petroleum), light aromatic, 64742-95-6;

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A1P2 class combination filter

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
nitrile gloves - material thickness: 0,35 mm

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	brown	
Odour:	amine-like	
pH value:	substance/mixture is non-polar/aprotic	
Melting point:	not determined	
onset of boiling:	>= 110 °C	(calculated)
Flash point:	> 23 °C	(ISO 3679)
Evaporation rate:	not determined	
Flammability (solid/gas):	Flammable liquid and vapour.	

Lower explosion limit:	36 g/m3
Ignition temperature:	> 200.00 °C
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Self heating ability:	It is not a material capable of spontaneous heating
Explosion hazard:	not explosive
Fire promoting properties:	not fire-propagating
Vapour pressure:	(20 °C) not determined (50 °C) not determined
Density:	0.931 g/cm3 (20 °C)
Relative vapour density (air):	Heavier than air.
Solubility in water:	not determined
Miscibility with water:	immiscible
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures
Viscosity, dynamic:	No applicable information available.
Viscosity, kinematic:	84.6 mm2/s (23 °C) 34.200 mm2/s (40 °C)
Flow time:	> 63 s (DIN EN ISO 2431; 4 mm) (23 °C)

10. Stability and Reactivity

Conditions to avoid:
Avoid heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke, oxides of nitrogen may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Based on available data, the classification criteria are not met.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Symptoms

allergic symptoms dazed state irritation of respiratory tract skin irritation dizziness Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:
Skin contact causes irritation. May cause severe damage to the eyes.

Respiratory/Skin sensitization

Assessment of sensitization:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life with long lasting effects. Toxic to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene
Elimination information:
70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: 2,2'-iminodi(ethylamine)
Elimination information:
87 % BOD of the ThOD (21 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, activated sludge, domestic, non-adapted)

50 % Specific analysis (30 d) (OECD Guideline 307) (aerobic, soil)

50 % Specific analysis (20 - 28 d) (OECD Guideline 309) (aerobic, aerobic microorganisms)

Information on: xylene
Elimination information:
87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Do not discharge into drains/surface waters/groundwater.
Observe national and local legal requirements.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Domestic transport:

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no
Special precautions for user:	None known

Further information
Hazchem Code:3Y
IERG Number:14

Sea transport
IMDG

UN number or ID number:	UN 1866

UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	EmS: F-E; S-E

Air transport
IATA/ICAO

UN number or ID number:	UN 1866
UN proper shipping name:	RESIN SOLUTION
Transport hazard class(es):	3
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components.Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

57-10 1,25L Additive Washprimer

Use: hardener

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat. 5 (oral)
Skin corrosion/irritation: Cat. 2
Serious eye damage/eye irritation: Cat. 1
Specific target organ toxicity — single exposure: Cat. 3 (Vapours may cause drowsiness and dizziness.)
Flammable liquids: Cat. 2

Label elements and precautionary statement:

Pictogram:

Signal Word:
Danger

Hazard Statement:

H225	Highly flammable liquid and vapour.
H303	May be harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash contaminated body parts thoroughly after handling.
P242	Use only non-sparking tools.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P310	Immediately call a POISON CENTER or physician.
P332 + P313	If skin irritation occurs: Get medical attention.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

organic solvent, inorganic acids

Hazardous ingredients

ethanol

Content (W/W): >= 25 % - < 30 %	Flam. Liq.: Cat. 2
CAS Number: 64-17-5	Eye Dam./Irrit.: Cat. 2A

propan-2-ol

Content (W/W): >= 50 % - < 75 %	Flam. Liq.: Cat. 2
CAS Number: 67-63-0	Acute Tox.: Cat. 5 (oral)
	Eye Dam./Irrit.: Cat. 2A
	STOT SE: Cat. 3 (drowsiness and dizziness)

n-butanol

Content (W/W): >= 12.5 % - < 15 %	Flam. Liq.: Cat. 3
CAS Number: 71-36-3	Acute Tox.: Cat. 5 (oral)
	Acute Tox.: Cat. 5 (dermal)
	Skin Corr./Irrit.: Cat. 2
	Eye Dam./Irrit.: Cat. 1
	STOT SE: Cat. 3 (drowsiness and dizziness)
	STOT SE: Cat. 3 (irr. to respiratory syst.)

phosphoric acid

Content (W/W): >= 3 % - < 5 %	Met. Corr.: Cat. 1
CAS Number: 7664-38-2	Acute Tox.: Cat. 4 (oral)
	Skin Corr./Irrit.: Cat. 1B
	Eye Dam./Irrit.: Cat. 1

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Immediately remove contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

On skin contact:
If symptoms persist, seek medical advice. Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:
Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

On ingestion:
Do not induce vomiting. Rinse mouth thoroughly with water, seek medical attention. If adverse health effects develop seek medical attention.

Note to physician:
Symptoms: dazed state, skin irritation, dizziness, Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
phosphorus oxides
Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:
Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

Environmental precautions:
Do not allow to enter drains or waterways. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for diposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

7. Handling and Storage

Handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. The relevant fire protection measures should be noted. Use explosion-proof equipment.

Storage

Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Polyethylenetherephtalate (PET), Polypropylene (PP)
Further information on storage conditions: Keep container dry. Keep in a cool, well-ventilated place. Avoid direct sunlight. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions.

Storage stability:
Storage temperature: 5.00 - 40.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethanol, 64-17-5;
STEL value 1,000 ppm (ACGIHTLV)
TWA value 1,880 mg/m3 ; 1,000 ppm (OEL (NZ))

propan-2-ol, 67-63-0;
STEL value 400 ppm (ACGIHTLV)
TWA value 200 ppm (ACGIHTLV)
STEL value 1,230 mg/m3 ; 500 ppm (OEL (NZ))
TWA value 983 mg/m3 ; 400 ppm (OEL (NZ))

n-butanol, 71-36-3;
TWA value 20 ppm (ACGIHTLV)
Skin Designation (OEL (NZ))
Skin absorption can be significant.
CLV 150 mg/m3 ; 50 ppm (OEL (NZ))

phosphoric acid, 7664-38-2;
TWA value 1 mg/m3 (ACGIHTLV)
STEL value 3 mg/m3 (ACGIHTLV)
TWA value 1 mg/m3 (OEL (NZ))

Personal protective equipment

Respiratory protection:
Suitable respiratory protection: e.g. half-mask with A1P2 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:
Further information on penetration time is available from the manufacturer of the glove.
Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.
The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).
Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.
The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Wear protective gloves. Any chemical protection glove certified according to EN ISO 374-1 is suitable: e.g.
butyl rubber gloves - material thickness: 0.5 mm

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166), Required when there is a risk of eye contact.

Body protection:
Anti-static protective clothing, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust

ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	alcohol-like	
pH value:	2.1 (500.00000 g/l)	
Melting point:	not determined	
onset of boiling:	82 °C	
Flash point:	> 14 °C	(ISO 3679)
Flammability (solid/gas):	Highly flammable liquid and vapour.	
Lower explosion limit:	36 g/m3	
Ignition temperature:	> 200.00 °C	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	45.00 hPa (20 °C)	(calculated)
	240.00 hPa (50 °C)	(calculated)
Density:	0.808 g/cm3 (20 °C)	
Miscibility with water:	miscible	
Viscosity, kinematic:	6.0 mm2/s (20 °C)	
	(40 °C) not determined	
Flow time:	< 30 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, open flame.

Substances to avoid:
Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions.

Hazardous reactions:
Vapours may form ignitable mixture with air.

When exposed to high temperatures hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke, oxides of nitrogen may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Of low toxicity after single ingestion.

Information on: propan-2-ol
Experimental/calculated data:
LD50 rat (oral): 4,396 mg/kg (other)
Literature data.

Information on: phosphoric acid
Experimental/calculated data:
LD50 rat (oral): 2,000 mg/kg (OECD Guideline 423)

Information on: n-butanol
Experimental/calculated data:
LD50 rabbit (dermal): 3,430 mg/kg (OECD Guideline 402)

Irritation

Assessment of irritating effects:
Skin contact causes irritation. May cause severe damage to the eyes.

Respiratory/Skin sensitization

Assessment of sensitization:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Assessment of STOT single:
Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
There are no test results available for this product. Do not allow to enter drains or waterways. Based on available data, the classification criteria are not met.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
No data available concerning biodegradation and elimination.

Bioaccumulation potential

Bioaccumulation potential:
No data available.

13. Disposal Considerations

Observe national and local legal requirements.
No disposal via sewage or waste water systems.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Domestic transport:

Packing group:	II
ID number:	UN 1263
Transport hazard class(es):	3
Proper shipping name:	PAINT RELATED MATERIAL

Further information

Hazchem Code:3YE
IERG Number:14

Sea transport
IMDG

Packing group:	II
ID number:	UN 1263
Transport hazard class(es):	3
Marine pollutant:	NO
Proper shipping name:	PAINT RELATED MATERIAL

Air transport
IATA/ICAO

Packing group:	II
ID number:	UN 1263
Transport hazard class(es):	3
Proper shipping name:	PAINT RELATED MATERIAL

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.
Tracking requirements do not apply to this substance.
A certified handler is not required for the handling of this substance.

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017

16. Other Information

For multi-pack systems observe material safety data sheets of all components. Restricted to professional users.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.