40-440 5L 2K Clear VOC

Version	Revision Date:	SDS Number:	Date of last issue: 22.08.2025
5.0	14.11.2025	000000000050794576	Date of first issue: 26.12.2024

Section 1: Identification

Product name : 40-440 5L 2K Clear VOC

Product code : 000000000050794576

Manufacturer or supplier's details

BASF Coatings and Chemetall New Zealand Limited
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Emergency contact

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Emergency telephone : 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)

Recommended use of the chemical and restrictions on use

Recommended use : Spraying
Clearcoat product

Section 2: Hazard identification

GHS Classification

Flammable liquids : Category 3

Skin sensitization : Category 1

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)
Hazardous to the aquatic environment - chronic hazard	:	Category 3

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements :
H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing mist or vapors.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection/ hearing protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

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.

Section 3: Composition/information on ingredients

Chemical nature : acrylic resin
organic solvent

Components

Chemical name	Common Name/Synonyms	CAS-No.	Classification	Concentration (% w/w)
2-heptanone	heptan-2-one	110-43-0	Flammable liquids, Category 3	>= 10 -< 20

			Acute toxicity (Oral), Category 4 Acute toxicity (Inhalation), Category 4 Specific target organ toxicity - single exposure (Central nervous system), Category 3	
n-Butyl acetate	n-butyl acetate	123-86-4	Flammable liquids, Category 3 Specific target organ toxicity - single exposure (Central nervous system), Category 3	>= 1 -< 10
Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0)	Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0)	64742-95-6	Flammable liquids, Category 3 Specific target organ toxicity - single exposure (Respiratory system, Central nervous system), Category 3 Aspiration hazard, Category 1 Hazardous to the aquatic environment - chronic hazard, Category 2	>= 1 -< 2.5
Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1,1- dimethylethyl)-4-hydroxy-, C7-9-	CGL 384	127519-17-9	Hazardous to the aquatic environment - chronic hazard, Category 2	>= 1 -< 2.5

branched and linear alkyl esters				
bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	41556-26-7	Skin sensitization, Sub-category 1A Reproductive toxicity, Category 2 Hazardous to the aquatic environment - acute hazard, Category 1 Hazardous to the aquatic environment - chronic hazard, Category 1	>= 0.25 -< 1
Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	82919-37-7	Skin sensitization, Sub-category 1A Reproductive toxicity, Category 2 Hazardous to the aquatic environment - acute hazard, Category 1 Hazardous to the aquatic environment - chronic hazard, Category 1	>= 0.1 -< 0.25

Section 4: First-aid measures

General advice : Never give anything by mouth to an unconscious person.
Move out of dangerous area.
In all cases of doubt, or when symptoms persist, seek medical attention.
Immediately remove contaminated clothing.

		If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). First aid personnel should pay attention to their own safety.
If inhaled	:	If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.
In case of skin contact	:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Do NOT use solvents or thinners. If symptoms persist, call a physician.
In case of eye contact	:	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
If swallowed	:	Rinse mouth. Do NOT induce vomiting. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	:	May cause an allergic skin reaction. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. 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.
Notes to physician	:	No known specific antidote.

Treat symptomatically.

Section 5: Fire-fighting measures

Suitable extinguishing media : Water spray

Dry powder

Foam

Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : Fire will produce dense black smoke containing hazardous combustion products (see section 10).

Advice for firefighters

Specific extinguishing methods : Cool containers/tanks with water spray.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

Hazchem Code : 3Y

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	:	Avoid breathing vapours. For non-emergency personnel: Use personal protective equipment. Ensure adequate ventilation, especially in confined areas. 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.
Environmental precautions	:	Do not allow uncontrolled discharge of product into the environment. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Ensure adequate ventilation. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Section 7: Handling and storage

Advice on 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 vapors are heavier than air and spread along floors. Vapor forms explosive mixtures with air.

The relevant fire protection measures should be noted.

Use explosion-proof equipment.

Advice on safe 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.

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. Do not breathe vapors or spray mist.
Hygiene measures	:	Remove contaminated clothing immediately and dispose of safely. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feedingstuffs.
Further information on storage conditions	:	Keep away from heat. 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. Keep in a dry, cool and well-ventilated place.
Materials to avoid	:	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Recommended storage temperature	:	5.00 - 35.00 °C
Packaging material	:	Suitable material: Carbon steel (Iron), tinned carbon steel (Tinplate)

Section 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-heptanone	110-43-0	WES-TWA	50 ppm 233 mg/m3	NZ OEL
		TWA	50 ppm	ACGIH
n-Butyl acetate	123-86-4	WES-STEL	200 ppm 950 mg/m3	NZ OEL
		WES-TWA	150 ppm 713 mg/m3	NZ OEL
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0)	64742-95-6	WES-TWA	300 ppm 890 mg/m3	NZ OEL
		WES-STEL	500 ppm 1,480 mg/m3	NZ OEL

Engineering measures : Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : Suitable respiratory equipment:

half-mask with A1P2 class combination filter

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks : 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

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 suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Request information on glove permeation properties from the glove supplier.

Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Preventive skin protection

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 also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 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 : Required when there is a risk of eye contact.

Safety glasses with side-shields conforming to EN166

Skin and body protection : Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

chemical-resistant disposable coveralls

Protective measures : Do not breathe vapour/spray.

Eye wash fountains and safety showers must be easily accessible.

If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn.

Avoid contact with the skin, eyes and clothing.

Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and chemical properties

Appearance	:	liquid
Color	:	colorless
Odor	:	ester-like
pH	:	substance/mixture is non-polar/aprotic
Melting point/ range	:	not determined
Boiling point/boiling range	:	124.00 °C
Flash point	:	32 °C Method: ISO 3679
Evaporation rate	:	No data available
Flammability	:	Flammable liquid and vapour.
Upper explosion limit / Upper flammability limit	:	not determined

Lower explosion limit / Lower flammability limit	:	> 35.0 g/m3
Vapor pressure	:	0.3 hPa (20 °C) not determined (50 °C)
Density	:	0.994 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	not determined
Partition coefficient: n-octanol/water	:	not applicable for mixtures
Autoignition temperature	:	> 200 °C
Decomposition temperature	:	No decomposition if stored and handled as prescribed/indicated.
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	340.7 mm2/s (23 °C) not determined (40 °C)
Flow time	:	> 50 s (23 °C) Cross section: 6 mm

		Method: ISO 2431
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-heating substances	:	The substance or mixture is not classified as self heating.
Metal corrosion rate	:	Not corrosive to metals.
Particle characteristics		
Particle size	:	The substance / product is marketed or used in a non solid or granular form.

Section 10: Stability and reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Vapours may form ignitable mixture with air.
Conditions to avoid	:	Heat, flames and sparks. Protect from frost. Avoid direct sunlight. Heat.
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

Section 11: Toxicological information

Acute toxicity

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

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h

Test atmosphere: vapor

Method: Calculation method

Components:

2-heptanone:

Acute oral toxicity : LD50 (Rat): 1,600 mg/kg

Acute inhalation toxicity : LC50 (Rat): 16.7 mg/l
Exposure time: 4 h

Test atmosphere: vapor

Skin corrosion/irritation

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

Components:

n-Butyl acetate:

Assessment : Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation
Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Skin sensitization
May cause an allergic skin reaction.

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

Chronic toxicity

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

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

Reproductive toxicity
Suspected of damaging fertility or the unborn child.

STOT-single exposure
May cause drowsiness or dizziness.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

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

Product:
No aspiration toxicity classification

Section 12: Ecological information

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential

Components:

2-heptanone:

Partition coefficient: n-octanol/water	:	log Pow: 2.26 (30 °C) pH: 7 Method: Regulation (EC) No. 440/2008, Annex, A.8 GLP: yes

n-Butyl acetate:

Partition coefficient: n-octanol/water	:	Pow: 200 (25 °C) log Pow: 2.3 (25 °C) pH: 7 Method: OECD Test Guideline 117 GLP: yes

Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0):

Partition coefficient: n-octanol/water	:	log Pow: 3.17 GLP: no

Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1,1- dimethylethyl)-4-hydroxy-, C7-9-branched and linear alkyl esters:

Partition coefficient: n-octanol/water	:	log Pow: 9.2

bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate:

Partition coefficient: n-octanol/water	:	Remarks: No data available

Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:

Partition coefficient: n-octanol/water	:	Remarks: No data available

Mobility in soil

No data available

Other adverse effects

No data available

Section 13: Disposal considerations

Disposal methods

Waste from residues	:	Do not discharge into drains/surface waters/groundwater. Observe national and local legal requirements.
Contaminated packaging	:	Packaging that is not properly emptied must be disposed of as the unused product.

Section 14: Transport information

International Regulations

UNRTDG

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3

Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	Flammable Liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

NZS 5433

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3
Hazchem Code	:	3Y
Marine pollutant	:	no

Special precautions for user

Remarks	:	Packages smaller than or equal to 450 liters, not goods/merchandise of Class 3
		Packages smaller than or equal to 450 liters, not goods/merchandise of Class 3

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

HSNO Approval Number
HSR002662 Surface Coatings and Colourants Flammable Group Standard

Tolerable Exposure Limits (TEL)
Not applicable

Environmental Exposure Limits (EEL)
Not applicable

HSW Controls
Certified handler certificate not required.
Tracking hazardous substance not required.

Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

Section 16: Other information

Revision Date	:	14.11.2025

Further information

Other information	:	For multi-pack systems observe material safety data sheets of all components. Restricted to professional users.
Date format	:	dd.mm.yyyy

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NZ OEL	:	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NZ OEL / WES-TWA	:	Workplace Exposure Standard - Time Weighted average
NZ OEL / WES-STEL	:	Workplace Exposure Standard - Short-Term Exposure Limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG

- Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

NZ / EN

50-415 0,5L VOC Hardener Fast

Version	Revision Date:	SDS Number:	Date of last issue: 24.04.2025
4.0	03.06.2025	000000000050795472	Date of first issue: 03.06.2025

Section 1: Identification

Product name : 50-415 0,5L VOC Hardener Fast

Product code : 000000000050795472

Manufacturer or supplier's details

BASF Coatings and Chemetall New Zealand Limited
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Auckland 1026
New Zealand
Telephone: 008 837 464, +64 9 820 3888
Telefax number: +64 9 820 3979
E-mail address: nzadmin@basf.com

Emergency contact

Telephone: +64 9 255-4300
E-mail address: ProductSafety_EC_APAC@basf.com, nzadmin@basf.com

Emergency telephone : 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)

Recommended use of the chemical and restrictions on use

Recommended use : Spraying
hardener

Section 2: Hazard identification

GHS Classification

Flammable liquids : Category 3

Acute toxicity (Inhalation) : Category 4

Serious eye damage/eye irritation	:	Category 2
Skin sensitization	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system, Central nervous system)
Specific target organ toxicity - repeated exposure	:	Category 2 (Kidney, Liver, Central nervous system, Auditory system)
Aspiration hazard	:	Category 1

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H226 Flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
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 (Kidney, Liver, Central nervous system, Auditory system) through prolonged or repeated exposure.

Precautionary Statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe mist or vapors.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor 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.
P314 Get medical advice/ attention if you feel unwell.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

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.

Section 3: Composition/information on ingredients

Chemical nature : organic solvent

Components

Chemical name	Common Name/Synonyms	CAS-No.	Classification	Concentration (% w/w)
Hexamethylen-1,6-diisocyanat Homopolymer	Hexamethylene diisocyanate, oligomers (Isocyanurate type)	28182-81-2	Acute toxicity (Inhalation), Category 4 Skin sensitization, Category 1 Specific target organ toxicity - single exposure (Respiratory system), Category 3	>= 50 -< 75
n-Butyl acetate	n-butyl acetate	123-86-4	Flammable liquids, Category 3 Specific target organ toxicity - single exposure (Central nervous system), Category 3	>= 12.5 -< 15

2-heptanone	heptan-2-one	110-43-0	Flammable liquids, Category 3 Acute toxicity (Oral), Category 4 Acute toxicity (Inhalation), Category 4 Specific target organ toxicity - single exposure (Central nervous system), Category 3	>= 12.5 -< 15
xylene	xylenes	1330-20-7	Flammable liquids, Category 3 Skin corrosion/irritation, Category 2 Serious eye damage/eye irritation, Category 2 Specific target organ toxicity - single exposure (Respiratory system), Category 3 Specific target organ toxicity - repeated exposure (Kidney, Liver, Central nervous system), Category 2 Aspiration hazard, Category 1 Hazardous to the aquatic environment - chronic hazard, Category 3	>= 7 -< 10

ethylbenzene	ethylbenzene	100-41-4	Flammable liquids, Category 2 Acute toxicity (Inhalation), Category 4 Specific target organ toxicity - repeated exposure (Auditory system), Category 2 Aspiration hazard, Category 1 Hazardous to the aquatic environment - chronic hazard, Category 3	>= 1 -< 2
3,5,5-trimethylhexanoic acid	3,5,5-trimethylhexanoic acid	3302-10-1	Acute toxicity (Oral), Category 4 Skin corrosion/irritation, Category 2 Serious eye damage/eye irritation, Category 1	>= 1 -< 2

Section 4: First-aid measures

General advice : 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.

		Keep patient warm and at rest. Never give anything by mouth to an unconscious person. Move out of dangerous area. Immediately remove contaminated clothing. First aid personnel should pay attention to their own safety.
If inhaled	:	If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician or poison control center immediately.
In case of skin contact	:	Do NOT use solvents or thinners. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
In case of eye contact	:	If easy to do, remove contact lens, if worn. Call a physician immediately. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
If swallowed	:	Rinse mouth with water. Do not induce vomiting due to aspiration hazard. Keep at rest. If swallowed, call a poison control center or doctor immediately.
Most important symptoms and effects, both acute and delayed	:	May be fatal if swallowed and enters airways. May cause an allergic skin reaction.

Causes serious eye irritation.

Harmful if inhaled.

May cause respiratory irritation.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

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.

Risk of product entering the lungs on vomiting after ingestion.

When inhaled (e.g. during vomiting) risk of pulmonary oedema and/or pneumonia.

Notes to physician : Treat symptomatically.
No known specific antidote.

Section 5: Fire-fighting measures

Suitable extinguishing media : Water spray jet

Dry powder

Alcohol-resistant foam

Carbon dioxide (CO_2)

Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke containing hazardous combustion products (see section 10).

Advice for firefighters

Specific extinguishing methods	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cool containers/tanks with water spray.
Special protective equipment for fire-fighters	:	Appropriate breathing apparatus may be required.
Hazchem Code	:	3Y

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	:	Avoid breathing vapours. For non-emergency personnel: Use personal protective equipment. Ensure adequate ventilation, especially in confined areas. 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.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities. Avoid subsoil penetration. Do not allow uncontrolled discharge of product into the environment.
Methods and materials for containment and cleaning 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).

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

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.

Section 7: Handling and storage

Advice on 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. The relevant fire protection measures should be noted. Use explosion-proof equipment. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.
Advice on safe 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. 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.
		Do not breathe vapors or spray mist.
Hygiene measures	:	Remove contaminated clothing immediately and dispose of safely.
		Wash hands before breaks and at the end of workday.
		Keep away from food, drink and animal feedingstuffs.
Further information on storage conditions	:	Keep away from heat.
		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.
		Keep in a dry, cool and well-ventilated place.
Materials to avoid	:	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Recommended storage temperature	:	5.00 - 35.00 °C
Packaging material	:	Suitable material: Carbon steel (Iron), tinned carbon steel (Tinplate)

Section 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Hexamethylen-1,6-diisocyanat Homopolymer	28182-81-2	WES-TWA (Inhalable Fraction and Vapour)	0.02 mg/m3 (NCO)	NZ OEL
	Further information: Skin sensitizer, Respiratory sensitizer			
		WES-STEL (Inhalable Fraction and Vapour)	0.07 mg/m3 (NCO)	NZ OEL
	Further information: Skin sensitizer, Respiratory sensitizer			
n-Butyl acetate	123-86-4	WES-STEL	200 ppm 950 mg/m3	NZ OEL
		WES-TWA	150 ppm 713 mg/m3	NZ OEL
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
2-heptanone	110-43-0	WES-TWA	50 ppm 233 mg/m3	NZ OEL
		TWA	50 ppm	ACGIH

xylene	1330-20-7	WES-TWA	50 ppm 217 mg/m3	NZ OEL
	Further information: Ototoxin			
		TWA	20 ppm	ACGIH
ethylbenzene	100-41-4	WES-TWA	20 ppm 88 mg/m3	NZ OEL
	Further information: Ototoxin, Skin absorption			
		WES-STEL	40 ppm 176 mg/m3	NZ OEL
	Further information: Ototoxin, Skin absorption			
		TWA	20 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
xylene	1330-20-7	Methylhippuric acid	Urine	End of shift	1.5 g/l	NZ BEI
		Methylhippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g creatinine	ACGIH BEI
ethylbenzene	100-41-4	Sum of	Urine	End of	0.25 g/g	NZ BEI

		mandelic acid and phenylglyoxylic acids		exposure or end of shift	creatinine	
		Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15 g/g creatinine	ACGIH BEI

Engineering measures : Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : Suitable respiratory equipment:

full face mask with AB2P3 class combination filter

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks	:	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 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 suitability for a specific workplace should be discussed with the producers of the protective gloves. Request information on glove permeation properties from the glove supplier. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Preventive skin protection 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 also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 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	:	Required when there is a risk of eye contact. Safety glasses with side-shields conforming to EN166
Skin and body protection	:	Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres. chemical-resistant disposable coveralls
Protective measures	:	Respiratory protective equipment should be worn by spray booth operatives. Persons with a history of allergies, asthma, recurrent or chronic respiratory disease must not be employed in any process in which this product is used. Persons using this product should undergo lung function tests at regular intervals. Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn.

Section 9: Physical and chemical properties

Appearance	:	liquid
Color	:	colorless
Odor	:	ketone-like
pH	:	substance/mixture is non-polar/aprotic
Melting point/ range	:	not determined
Boiling point/boiling range	:	114.00 - 147.00 °C
Flash point	:	> 33 °C Method: ISO 3679
Evaporation rate	:	not determined
Flammability	:	Flammable liquid and vapour.
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower	:	> 35.0 g/m3

flammability limit		
Vapor pressure	:	21.5000 hPa (20 °C) not determined (50 °C)
Density	:	1.008 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	not determined
Partition coefficient: n-octanol/water	:	not applicable for mixtures
Autoignition temperature	:	> 200 °C
Decomposition temperature	:	No decomposition if stored and handled as prescribed/indicated.
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	7.3 mm2/s (23 °C) not determined (40 °C)
Flow time	:	> 30 s Cross section: 3 mm

Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-heating substances	:	The substance or mixture is not classified as self heating.
Metal corrosion rate	:	Not corrosive to metals.
Particle characteristics Particle size	:	The substance / product is marketed or used in a non solid or granular form.

Section 10: Stability and reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Vapours may form ignitable mixture with air.
Conditions to avoid	:	Avoid direct sunlight. Heat, flames and sparks. Heat. Protect from frost.
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

Section 11: Toxicological information

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 16.44 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method

Components:

2-heptanone:

Acute oral toxicity	:	LD50 (Rat): 1,600 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 16.7 mg/l Exposure time: 4 h Test atmosphere: vapor

Skin corrosion/irritation

Not classified due to lack of data.

Components:

n-Butyl acetate:

Assessment : Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified due to lack of data.

Chronic toxicity

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

May cause respiratory irritation.
May cause drowsiness or dizziness.

STOT-repeated exposure

May cause damage to organs (Kidney, Liver, Central nervous system, Auditory system) through prolonged or repeated exposure.

Aspiration toxicity

May be fatal if swallowed and enters airways.

Section 12: Ecological information

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Components:

Hexamethylen-1,6-diisocyanat Homopolymer:

Partition coefficient: n-octanol/water : log Pow: 9.81 (25 °C)

n-Butyl acetate:

Partition coefficient: n-octanol/water : Pow: 200 (25 °C)

log Pow: 2.3 (25 °C)

pH: 7

Method: OECD Test Guideline 117

GLP: yes

2-heptanone:

Partition coefficient: n-octanol/water : log Pow: 2.26 (30 °C)

pH: 7

Method: Regulation (EC) No. 440/2008, Annex, A.8

GLP: yes

xylene:

Partition coefficient: n-octanol/water : log Pow: 3.12 - 3.20 (25 °C)

GLP: no

Remarks: Information taken from reference works and the literature.

ethylbenzene:

Partition coefficient: n-octanol/water : Pow: 4,170 (20 °C)

log Pow: 3.6 (20 °C)

pH: 7.8

GLP: yes

3,5,5-trimethylhexanoic acid:

Partition coefficient: n-octanol/water : Pow: 1,580 (25 °C)

log Pow: 3.2 (25 °C)

pH: 3

Method: OECD Test Guideline 117

GLP: yes

Mobility in soil

No data available

Other adverse effects

No data available

Section 13: Disposal considerations

Disposal methods

Waste from residues : Do not discharge into drains/surface waters/groundwater.

Observe national and local legal requirements.

Contaminated packaging : Containers which are not properly emptied must be disposed pursuant to Directive 2008/98/EC

Packaging that is not properly emptied must be disposed of as the unused product.

Section 14: Transport information

International Regulations

UNRTDG

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	Flammable Liquids
Packing instruction (cargo aircraft)	:	366

Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

NZS 5433

UN number	:	UN 1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Labels	:	3
Hazchem Code	:	3Y
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

ERG Code : 128

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

HSNO Approval Number
HSR002662 Surface Coatings and Colourants Flammable Group Standard

Tolerable Exposure Limits (TEL)
Not applicable

Environmental Exposure Limits (EEL)
Not applicable

HSW Controls
Certified handler certificate not required.
Tracking hazardous substance not required.
Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

Section 16: Other information

Revision Date : 03.06.2025

Further information

Other information : For multi-pack systems observe material safety data sheets of all components.

Restricted to professional users.

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)

NZ BEI : New Zealand. Biological Exposure Indices

NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

ACGIH / TWA : 8-hour, time-weighted average

ACGIH / STEL : Short-term exposure limit

NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average

NZ OEL / WES-STEL : Workplace Exposure Standard - Short-Term Exposure Limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention

for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

NZ / EN

50-420 2,5L VOC Hardener Normal

Version	Revision Date:	SDS Number:	Date of last issue: 24.12.2024
2.0	09.10.2025	000000000050400517	Date of first issue: 03.06.2024

Section 1: Identification

Product name : 50-420 2,5L VOC Hardener Normal

Product code : 000000000050400517

Manufacturer or supplier's details

BASF Coatings and Chemetall New Zealand Limited
Level 1, 527A Rosebank Road, Avondale
Auckland 1026
New Zealand
Telephone: 008 837 464, +64 9 820 3888
Telefax number: +64 9 820 3979
E-mail address: nzadmin@basf.com

Emergency contact

Telephone: +64 9 255-4300
E-mail address: ProductSafety_EC_APAC@basf.com, nzadmin@basf.com

Emergency telephone : 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)

Recommended use of the chemical and restrictions on use

Recommended use : Spraying
hardener
Spraying

Section 2: Hazard identification

GHS Classification

Flammable liquids : Category 3

Acute toxicity (Inhalation) : Category 4

Skin sensitization	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system, Central nervous system)
Hazardous to the aquatic environment - chronic hazard	:	Category 3

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements :
H226 Flammable liquid and vapor.
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:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing mist or vapors.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of

the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
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.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

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.

Section 3: Composition/information on ingredients

Chemical nature : organic solvent polyisocyanate

Components

Chemical name	Common Name/Synonyms	CAS-No.	Classification	Concentration (% w/w)

Hexamethylen-1,6-diisocyanat Homopolymer	Hexamethylene diisocyanate, oligomers (Isocyanurate type)	28182-81-2	Acute toxicity (Inhalation), Category 4 Skin sensitization, Category 1 Specific target organ toxicity - single exposure (Respiratory system), Category 3	>= 50 -< 70
2-heptanone	heptan-2-one	110-43-0	Flammable liquids, Category 3 Acute toxicity (Oral), Category 4 Acute toxicity (Inhalation), Category 4 Specific target organ toxicity - single exposure (Central nervous system), Category 3	>= 20 -< 30
1-methoxy-2-propylacetate	2-methoxy-1-methylethyl acetate	108-65-6	Flammable liquids, Category 3 Specific target organ toxicity - single exposure (Central nervous system), Category 3	>= 1 -< 10
2-butoxyethyl acetate	2-butoxyethyl acetate	112-07-2	Flammable liquids, Category 4 Acute toxicity (Oral), Category 4 Acute toxicity (Dermal), Category	>= 1 -< 10

			4	
Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0)	Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0)	64742-95-6	Flammable liquids, Category 3 Specific target organ toxicity - single exposure (Respiratory system, Central nervous system), Category 3 Aspiration hazard, Category 1 Hazardous to the aquatic environment - chronic hazard, Category 2	>= 2.5 -< 10

Section 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).
Immediately remove contaminated clothing.
In all cases of doubt, or when symptoms persist, seek medical attention.
Move out of dangerous area.
Never give anything by mouth to an unconscious person.

If inhaled : If symptoms persist, call a physician.

If breathed in, move person into fresh air.

If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact	:	If symptoms persist, call a physician. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Do NOT use solvents or thinners.
In case of eye contact	:	If symptoms persist, call a physician. In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If swallowed	:	If symptoms persist, call a physician. Do NOT induce vomiting. Rinse mouth.
Most important symptoms and effects, both acute and delayed	:	May cause an allergic skin reaction. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or 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.
Notes to physician	:	No known specific antidote. Treat symptomatically.

Section 5: Fire-fighting measures

Suitable extinguishing media	:	Water spray jet

Dry powder

Alcohol-resistant foam

Carbon dioxide (CO2)

Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fire will produce dense black smoke containing hazardous combustion products (see section 10).

Advice for firefighters

Specific extinguishing methods	:	Cool containers/tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Special protective equipment for fire-fighters	:	Appropriate breathing apparatus may be required.

Hazchem Code	:	3Y

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	:	Avoid breathing vapours. Keep away from sources of ignition. Advice on product handling can be found in sections 7 and 8 of this safety data sheet. For non-emergency personnel: For emergency responders: Use personal protective equipment. Ensure adequate ventilation, especially in confined areas.
Environmental precautions	:	Do not allow uncontrolled discharge of product into the environment. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning 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.

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Section 7: Handling and storage

Advice on 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 vapors are heavier than air and spread along floors. Vapor forms explosive mixtures with air.

The relevant fire protection measures should be noted.

Use explosion-proof equipment.

Vapors may form explosive mixtures with air.

Advice on safe 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.

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.

Do not breathe vapors or spray mist.

Hygiene measures : Remove contaminated clothing immediately and dispose of safely.

Wash hands before breaks and at the end of workday.

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions	:	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. Keep in a dry, cool and well-ventilated place. Keep away from heat. Store protected against freezing.
Materials to avoid	:	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Recommended storage temperature	:	5.00 - 35.00 °C
Packaging material	:	Suitable material: Carbon steel (Iron), tinned carbon steel (Tinplate)

Section 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

Hexamethylen-1,6-diisocyanat Homopolymer	28182-81-2	WES-TWA (Inhalable Fraction and Vapour)	0.02 mg/m3 (NCO)	NZ OEL
	Further information: Skin sensitizer, Respiratory sensitizer			
		WES-STEL (Inhalable Fraction and Vapour)	0.07 mg/m3 (NCO)	NZ OEL
	Further information: Skin sensitizer, Respiratory sensitizer			
2-heptanone	110-43-0	WES-TWA	50 ppm 233 mg/m3	NZ OEL
		TWA	50 ppm	ACGIH
2-butoxyethyl acetate	112-07-2	TWA	20 ppm	ACGIH
Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0)	64742-95-6	WES-TWA	300 ppm 890 mg/m3	NZ OEL
		WES-STEL	500 ppm 1,480 mg/m3	NZ OEL

Engineering measures : Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : Suitable respiratory equipment:

full face mask with AB2P3 class combination filter

In case of mist, spray or aerosol exposure wear suitable

personal respiratory protection and protective suit.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks	:	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 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 suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Request information on glove permeation properties from the glove supplier.

Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Preventive skin protection

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 also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 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 : Required when there is a risk of eye contact.

Safety glasses with side-shields conforming to EN166

Skin and body protection : Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

chemical-resistant disposable coveralls

Protective measures : Do not breathe vapour/spray.

Eye wash fountains and safety showers must be easily accessible.

If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn.

Avoid contact with the skin, eyes and clothing.

Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and chemical properties

Appearance	:	liquid
Color	:	colorless
Odor	:	ketone-like
pH	:	substance/mixture is non-polar/aprotic
Melting point/ range	:	not determined
Boiling point/boiling range	:	not determined
Flash point	:	45 °C Method: ISO 3679
Flammability	:	Flammable liquid and vapour.
Upper explosion limit / Upper flammability limit	:	not determined

Lower explosion limit / Lower flammability limit	:	> 35.0 g/m3
Vapor pressure	:	not determined (20 °C) not determined (50 °C)
Density	:	1.014 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	not determined
Partition coefficient: n-octanol/water	:	not applicable for mixtures
Autoignition temperature	:	> 200 °C
Decomposition temperature	:	No decomposition if stored and handled as prescribed/indicated.
Viscosity		
Viscosity, kinematic	:	7.3 mm2/s (23 °C) not determined (40 °C)
Flow time	:	> 30 s (23 °C) Cross section: 3 mm

		Method: ISO 2431
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-heating substances	:	The substance or mixture is not classified as self heating.
Metal corrosion rate	:	Not corrosive to metals.
Particle characteristics Particle size	:	The substance / product is marketed or used in a non solid or granular form.

Section 10: Stability and reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Vapours may form ignitable mixture with air.
Conditions to avoid	:	Avoid direct sunlight. Protect from frost. Heat, flames and sparks. Heat.
Incompatible materials	:	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

Section 11: Toxicological information

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 15.63 mg/l
Exposure time: 4 h

Test atmosphere: vapor

Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Components:

2-heptanone:

Acute oral toxicity : LD50 (Rat): 1,600 mg/kg

Acute inhalation toxicity : LC50 (Rat): 16.7 mg/l
Exposure time: 4 h

Test atmosphere: vapor

2-butoxyethyl acetate:

Acute oral toxicity	:	LD50 (Rat): 1,880 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): 1,500 mg/kg

Skin corrosion/irritation
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation
Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Skin sensitization
May cause an allergic skin reaction.

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

Chronic toxicity

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

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

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

STOT-single exposure
May cause respiratory irritation.
May cause drowsiness or dizziness.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

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

Product:

No aspiration toxicity classification

Section 12: Ecological information

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Components:

Hexamethylen-1,6-diisocyanat Homopolymer:

Partition coefficient: n-octanol/water	:	log Pow: 9.81 (25 °C)

2-heptanone:

Partition coefficient: n-octanol/water	:	log Pow: 2.26 (30 °C) pH: 7 Method: Regulation (EC) No. 440/2008, Annex, A.8 GLP: yes

1-methoxy-2-propylacetate:

Partition coefficient: n-octanol/water	:	log Pow: 1.2 (20 °C) pH: 6.8 Method: OECD Test Guideline 117 GLP: yes

2-butoxyethyl acetate:

Partition coefficient: n-octanol/water	:	log Pow: 1.51 (25 °C) pH: 7 Method: OECD Test Guideline 107 GLP: no

Solvent naphtha (petroleum), light arom. (CAS EU: 128601-23-0):

Partition coefficient: n-octanol/water	:	log Pow: 3.17 GLP: no

Mobility in soil

No data available

Other adverse effects

No data available

Section 13: Disposal considerations

Disposal methods

Waste from residues	:	Do not discharge into drains/surface waters/groundwater. Observe national and local legal requirements.
Contaminated packaging	:	Packaging that is not properly emptied must be disposed of as the unused product.

Section 14: Transport information

International Regulations

UNRTDG

UN number	:	UN 1866
Proper shipping name	:	RESIN SOLUTION
Class	:	3
Packing group	:	III
Labels	:	3
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 1866
Proper shipping name	:	RESIN SOLUTION
Class	:	3
Packing group	:	III
Labels	:	Flammable Liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1866
Proper shipping name	:	RESIN SOLUTION
Class	:	3
Packing group	:	III

Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

NZS 5433

UN number	:	UN 1866
Proper shipping name	:	RESIN SOLUTION
Class	:	3
Packing group	:	III
Labels	:	3
Hazchem Code	:	3Y
Marine pollutant	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

HSNO Approval Number
not allocated

Tolerable Exposure Limits (TEL)

Not applicable

Environmental Exposure Limits (EEL)
Not applicable

Section 16: Other information

Revision Date : 09.10.2025

Further information

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

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

ACGIH / TWA : 8-hour, time-weighted average

NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average

NZ OEL / WES-STEL : Workplace Exposure Standard - Short-Term Exposure Limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx -

Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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