



according to Regulation (EC) No 1907/2006

Panasil Adhesive

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Panasil Adhesive

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Adhesive for Kettenbach addition-curing impression material and reline impression materials.

For dental use.

1.3. Details of the supplier of the safety data sheet

Company name: Kettenbach GmbH & Co. KG

Street: Im Heerfeld 7

Place: D-35713 Eschenburg

Telephone: + 49(0) 2774/705-0 Telefax: +49 (0) 2774/705-87

e-mail: info@kettenbach.de

Contact person: Regulatory Affairs Manager Telephone: +49 (0)2774/705-0

Internet: www.kettenbach.de
Responsible Department: Regulatory Affairs

1.4. Emergency telephone +49 (0)30 30686790 (English/German)

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: Xn - Harmful, Xi - Irritant

R phrases:

Highly flammable. Harmful by inhalation.

Irritating to eyes.

Repeated exposure may cause skin dryness or cracking.

GHS classification

Hazard categories:

Flammable liquid: Flam. Liq. 3 Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

2.2. Label elements

Hazardous components which must be listed on the label

ethyl acetate

Signal word: Warning
Pictograms: GHS02-GHS07







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Hazard statements

H226 Flammable liquid and vapour.
H315 Causes skin irritation.

H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.
P243 Take precautionary measures against static discharge.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

2.3. Other hazards

Highly flammable.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Preparation based on silicone resin in organic solvents.

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
205-500-4	ethyl acetate	25-50%
141-78-6	F - Highly flammable, Xi - Irritant R11-36-66-67	
607-022-00-5	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
215-535-7	xylene	5-10%
1330-20-7	Xn - Harmful, Xi - Irritant R10-20/21-38	
601-022-00-9	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H332 H312 H315	
202-849-4	ethylbenzene	0-5%
100-41-4	F - Highly flammable, Xn - Harmful R11-20	
601-023-00-4	Flam. Liq. 2, Acute Tox. 4; H225 H332	
227-006-8	Butyl titanate (IV)	0-5 %
5593-70-4	Xi - Irritant R10-38-41	

Full text of R and H phrases: see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. Seek medical attention if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.



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After ingestion

Rinse mouth immediately and drink large quantities of water. Immediately get medical attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2). Sand. Extinguishing powder.

Extinguishing media which must not be used for safety reasons

Water.

5.2. Special hazards arising from the substance or mixture

In case of fire and/or explosion do not breathe fumes. Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

Extinguishing materials should be selected according to the surrounding area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Wear personal protection equipment.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Wipe up with absorbent material (eg. cloth, fleece). Do not rinse down with water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Keep away from sources of ignition - No smoking. Keep container tightly closed and in a well-ventilated place.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Further information on handling

Provide fresh air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed and in a well-ventilated place.

Further information on storage conditions

Protect against: heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters



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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
141-78-6	Ethyl acetate	200	-		TWA (8 h)	WEL
		400	-		STEL (15 min)	WEL
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid	650 mmol/mol	urine	Post shift

8.2. Exposure controls

Protective and hygiene measures

Avoid contact with skin, eye and clothing. Change contaminated clothing. Wash hands before breaks and at the end of work. Protect skin by using skin protective cream.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. Provide adequate ventilation.

Hand protection

Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications.

Hand protection: Suitable material: Butyl rubber.

Eye protection

Framed glasses.

Skin protection

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid Colour: blue

Odour: characteristic

Test method

Changes in the physical state

Boiling point: >77 °C
Flash point: > -4 °C
Lower explosion limits: 2,1 vol. %
Upper explosion limits: 11,5 vol. %
Ignition temperature: > 400 °C
Vapour pressure: < 102 hPa (at 20 °C)

Density (at 20 °C): 1,05 - 1,1 g/cm³



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Water solubility: practically insoluble

(at 20 °C)

9.2. Other information

Formation of potentially explosive vapor/air mixtures is possible.

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

None by intended use.

10.5. Incompatible materials

none/none

10.6. Hazardous decomposition products

none/none

Further information

Highly flammable. Vapours may form explosive mixtures with air.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Irritant effect on the skin: Not an irritant. Irritant effect on the eye: irritant. Sensitization: no danger of sensitization.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
1330-20-7	xylene				
	dermal	ATE	1100 mg/kg		
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		
100-41-4	ethylbenzene				
	oral	LD50	3500 mg/kg	Rat	GESTIS
	dermal	LD50 mg/kg	15400	Rabbit	GESTIS
	inhalative (4 h) vapour	LC50	17,2 mg/l	Rat	
	inhalative aerosol	ATE	1,5 mg/l		

Additional information on tests

Preparation not tested. No data available.

Further information

Harmful by inhalation and if swallowed.

 $Hazards\ identification: Nausea.\ Headache.\ Vapours\ may\ cause\ drowsiness\ and\ dizziness\ .$

After skin contact: Has de-greasing effect on the skin.

Following eye contact: Irritant.

Harmful: may cause lung damage if swallowed.

SECTION 12: Ecological information



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12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	h	Species	Source
100-41-4	ethylbenzene					
	Acute algae toxicity	ErC50	3,6 mg/l	96		GESTIS

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
100-41-4	ethylbenzene	3,15

Further information

Leakage into the environment must be prevented.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not remove with domestic waste. Do not empty into drains or the aquatic environment. Waste disposal according to official state regulations.

Waste disposal number of waste from residues/unused products

180106

WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances

Classified as hazardous waste.

Waste disposal number of used product

200399

MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; other municipal wastes; municipal wastes not otherwise specified

Contaminated packaging

Cleaned containers may be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: 1173

14.2. UN proper shipping name: ETHYL ACETATE

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3



Classification code: F1
Limited quantity: 1 L
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E





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Other applicable information (land transport)

Cathegory of transportation: 2 Tunnelrestrictioncode: D1E

E

Marine transport (IMDG)

14.1. UN number: 1173

14.2. UN proper shipping name: ETHYL ACETATE

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3



Special Provisions: Limited quantity: 1 L
EmS: F-E, S-D

Other applicable information (marine transport)

E2

Air transport (ICAO)

14.1. UN number: 1173

14.2. UN proper shipping name: ETHYL ACETATE

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3



Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger:353IATA-max. quantity - Passenger:5 LIATA-packing instructions - Cargo:364IATA-max. quantity - Cargo:60 L

Other applicable information (air transport)

Passenger-LQ: Y305

E2

Passenger-LQ: Y341

SECTION 15: Regulatory information

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

National regulatory information

Water contaminating class (D): 2 - water contaminating

SECTION 16: Other information

Full text of R phrases referred to under Sections 2 and 3

10 Flammable.11 Highly flammable.20 Harmful by inhalation.



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20/21	Harmful by inhalation and in contact with skin.	
36	Irritating to eyes.	
38	Irritating to skin.	
41	Risk of serious damage to eyes.	
66	Repeated exposure may cause skin dryness or cracking.	
67	Vapours may cause drowsiness and dizziness.	
Full text of H state	ements referred to under Sections 2 and 3	
H225	Highly flammable liquid and vapour.	
H226	Flammable liquid and vapour.	
H312	Harmful in contact with skin.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H336	May cause drowsiness or dizziness.	
Further Information	on	
The ir	nformation is based on present level of our knowledge. It does not, however, give assurances of	
•	ct properties and establishes no contract legal rights. The receiver of our product is singulary nsible for adhering to existing laws and regulations.	
ТСЭРО	noisie for denoting to existing tame and regulations.	

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)