

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.06.2018

Version number 4

Revision: 25.06.2018

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

- 1.1 Product identifier
- Trade name: **KEMPERDUR EP-Finish (B)**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the mixture: Sealing
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: KEMPER SYSTEM GmbH & Co. KG  
Holländische Strasse 32-36  
34246 Vellmar  
Deutschland / Germany  
Telefon: +49 (0)561 / 8295-0  
Telefax: +49 (0)561 / 8295-5110  
E-Mail: MSDS@KEMPER-SYSTEM.COM
- Further information obtainable from: research & development
- 1.4 Emergency telephone number: Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen  
Langenbeckstraße 1; Gebäude 601; 55131 Mainz  
Tel. Nr.: +49 (0)6131 / 19 24 0  
Universitätsmedizin der Johannes Gutenberg-Universität Mainz

## SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Corr. 1A	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

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- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS05    GHS07    GHS09

- Signal word: Danger
- Hazard-determining components of labelling: Benzyl alcohol  
Formaldehyde, oligomeric reaction products with 3,3'-iminodi(propylamine)  
1,3-Cyclohexanedimethanamine
- Hazard statements

H302+H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.

- Precautionary statements

P260	Do not breathe dusts or mists.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture: consisting of the following components.

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**- Dangerous components:**

CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	25-50%
CAS: 161278-35-9 NLP: 500-626-9	Formaldehyde, oligomeric reaction products with 3,3'-iminodi(propylamine) Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	12.5-25%
CAS: 2579-20-6 EINECS: 219-941-5 Reg.nr.: 01-2119543741-41	1,3-Cyclohexanedimethanamine Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Aquatic Chronic 3, H412	2.5-10%
CAS: 80206-82-2 EINECS: 279-420-3 Reg.nr.: 01-2120117739-49	Alcohols, C12-14 Aquatic Acute 1, H400; Skin Irrit. 2, H315	2.5-10%

**- Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

**- 4.1 Description of first aid measures****- General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Do not leave affected persons unattended.

Personal protection for the First Aider.

Take affected persons out of danger area and lay down.

**- After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air; consult doctor in case of complaints.

**- After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment in case of complaints.

**- After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Protect unharmed eye.

**- After swallowing:**

If symptoms persist consult doctor.

**- 4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**- 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### SECTION 5: Firefighting measures

**- 5.1 Extinguishing media****- Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

**- 5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Formation of toxic gases is possible during heating or in case of fire.

**- 5.3 Advice for firefighters****- Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

**- Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

**- 6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Avoid contact with skin and eyes

**- 6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Prevent from spreading (e.g. by damming-in or oil barriers).

Do not allow to enter sewers/ surface or ground water.

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**- 6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralising agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

**- 6.4 Reference to other sections**

Do not flush with water or aqueous cleansing agents  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

**- 7.1 Precautions for safe handling**

Store in cool, dry place in tightly closed receptacles.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

**- 7.2 Conditions for safe storage, including any incompatibilities**

**- Storage:**

**- Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

**- Information about storage in one common storage facility:**

Do not store together with oxidising and acidic materials.  
Store away from foodstuffs.

**- Further information about storage conditions:**

Store in dry conditions.  
Protect from frost.  
Keep container tightly sealed.  
Recommended storage temperature: 5-30 °C

**- Storage class:**

8 B

**- 7.3 Specific end use(s)**

No further relevant information available.

### SECTION 8: Exposure controls/personal protection

**- Additional information about design of technical facilities:**

No further data; see item 7.

**- 8.1 Control parameters**

**- Ingredients with limit values that require monitoring at the workplace:**

**- Additional information:**

The lists valid during the making were used as basis.

**- 8.2 Exposure controls**

**- Personal protective equipment:**

**- General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

**- Respiratory protection:**

When used properly and under normal conditions, breathing protection is not required.  
Use suitable respiratory protective device in case of insufficient ventilation.  
Filter A/P2

**- Protection of hands:**

Respiratory protection - Gas filters and combination filters according to EN 141



Protective gloves

Check protective gloves prior to each use for their proper condition.  
Only use chemical-protective gloves with CE-labelling of category III.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
After use of gloves apply skin-cleaning agents and skin cosmetics.

**- Material of gloves**

Recommended materials:  
Butyl rubber, BR  
Recommended thickness of the material:  $\geq 0.7$  mm

**- Penetration time of glove material**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.  
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

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- As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.1$  mm  
Penetration time (min.):  $<10$

- Eye protection:



Tightly sealed goggles

- Body protection:

Protective work clothing  
Impervious protective clothing

## SECTION 9: Physical and chemical properties

### - 9.1 Information on basic physical and chemical properties

#### - General Information

#### - Appearance:

Form:	Fluid
Colour:	Light yellow
- Odour:	Amine-like
- Odour threshold:	Not determined.

- pH-value at 20 °C: 11

#### - Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	$>200$ °C

- Flash point:  $>100$  °C

- Flammability (solid, gas): Not applicable.

- Ignition temperature: 300 °C

- Decomposition temperature: Not determined.

- Auto-ignition temperature: Product is not selfigniting.

- Explosive properties: Product does not present an explosion hazard.

#### - Explosion limits:

Lower:	1.2 Vol %
Upper:	13 Vol %

- Density at 20 °C: 1.02 g/cm<sup>3</sup>

- Relative density: Not determined.

- Vapour density: Not determined.

- Evaporation rate: Not determined.

#### - Solubility in / Miscibility with water:

Not miscible or difficult to mix.

- Partition coefficient: n-octanol/water: Not determined.

#### - Viscosity:

Dynamic at 20 °C:	165 mPas
Kinematic:	Not determined.

#### - Solvent content:

VOC (EC)	2.90 %
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- 9.2 Other information: No further relevant information available.

## SECTION 10: Stability and reactivity

### - 10.1 Reactivity

No further relevant information available.

### - 10.2 Chemical stability

#### - Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

### - 10.3 Possibility of hazardous reactions

No dangerous reactions known.

### - 10.4 Conditions to avoid

No further relevant information available.

### - 10.5 Incompatible materials:

No further relevant information available.

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- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**- **Acute toxicity** Harmful if swallowed or if inhaled.- **LD/LC50 values relevant for classification:****100-51-6 Benzyl alcohol**

Oral	LD50	1,610 mg/kg (rat) (Loeser 1978)
Inhalative	LC50/4 h	4.178 mg/l (rat) (OECD 403)

**161278-35-9 Formaldehyde, oligomeric reaction products with 3,3'-iminodi(propylamine)**

Oral	LD50	500 mg/kg (ATE)
Dermal	LD50	1,100 mg/kg (ATE)
Inhalative	LC50/4 h	11 mg/l (ATE)

**2579-20-6 1,3-Cyclohexanedimethanamine**

Oral	LD50	793 mg/kg (rat)
Dermal	LD50	1,100 mg/kg (ATE)

**80206-82-2 Alcohols, C12-14**

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)

- **Primary irritant effect:**- **Skin corrosion/irritation** Causes severe skin burns and eye damage.- **Serious eye damage/irritation** Causes serious eye damage.- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**- **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** Based on available data, the classification criteria are not met.- **STOT-repeated exposure** Based on available data, the classification criteria are not met.- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**- **Aquatic toxicity:****100-51-6 Benzyl alcohol**

NOEC	51 mg/kg (Daphnia magna) (OECD 211)
IC50	700 mg/l (ALGAE) (72 h)
LC50/96 h	460 mg/l (Pimephales promelas)
	10 mg/l (Blauer Sonnenbarsch -Lepomis macrochirus)
NOEC	200 mg/l (mouse) (OECD 453)
	400 mg/l (rat) (OECD 453)
EC50	360 mg/l (Daphnia magna) ((48h) Bringmann, Kuehn, 1959)
EC50	770 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC50	2,100 mg/l (Belebtschlamm) (OECD 209; 49h)
NOEC	310 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

**2579-20-6 1,3-Cyclohexanedimethanamine**

EC50	58.4 mg/l (ALGAE) (72h)
EC50	130 mg/l (Leuciscus idus) (96h; golden orfe)
EC50	33.1 mg/l (Daphnia magna) (48h; Big Water flea)

**80206-82-2 Alcohols, C12-14**

EC50	63 mg/l (daphnia) (48h)
EC50	0.7 mg/l (ALGAE) (72h)
EC50	0.59 mg/l (fish) (96h; Q-SAR)

- **12.2 Persistence and degradability** No further relevant information available.- **12.3 Bioaccumulative potential** No further relevant information available.- **12.4 Mobility in soil** No further relevant information available.

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**- Additional ecological information:**

**- General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

**- 12.5 Results of PBT and vPvB assessment**

**- PBT:**

Not applicable.

**- vPvB:**

Not applicable.

**- 12.6 Other adverse effects**

No further relevant information available.

### SECTION 13: Disposal considerations

**- 13.1 Waste treatment methods**

**- Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Disposal according to official regulations

**- European waste catalogue**

08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09

**- Uncleaned packaging:**

**- Recommendation:**

Disposal must be made according to official regulations.

### SECTION 14: Transport information

**- 14.1 UN-Number**

**- ADR, IMDG, IATA**

UN2735

**- 14.2 UN proper shipping name**

**- ADR**

2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (AMINOPHENOLS), ENVIRONMENTALLY HAZARDOUS

**- IMDG**

POLYAMINES, LIQUID, CORROSIVE, N.O.S. (AMINOPHENOLS), MARINE POLLUTANT

**- IATA**

POLYAMINES, LIQUID, CORROSIVE, N.O.S. (AMINOPHENOLS)

**- 14.3 Transport hazard class(es)**

**- ADR**



**- Class**

8 (C5) Corrosive substances.

**- Label**

8

**- IMDG**



**- Class**

8 Corrosive substances.

**- Label**

8

**- IATA**



**- Class**

8 Corrosive substances.

**- Label**

8

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- 14.4 Packing group - ADR, IMDG, IATA	II
- 14.5 Environmental hazards: - Marine pollutant:	No Symbol (fish and tree)
- Special marking (ADR):	Symbol (fish and tree)
- 14.6 Special precautions for user - Danger code (Kemler): - EMS Number: - Segregation groups - Stowage Category - Segregation Code	Warning: Corrosive substances. 80 F-A,S-B Alkalis A SG35 Stow "separated from" acids.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information: - ADR - Limited quantities (LQ) - Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
- Transport category - Tunnel restriction code	2 E
- IMDG - Limited quantities (LQ) - Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
- UN "Model Regulation":	UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (AMINOPHENOLS), 8, II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
- Directive 2012/18/EU	
- Named dangerous substances - ANNEX I	None of the ingredients is listed.
- Seveso category	E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements	200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements	500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII	Conditions of restriction: 3
- National regulations:	
- Information about limitation of use:	Employment restrictions concerning juveniles must be observed. Employment restrictions concerning pregnant and lactating women must be observed. Employment restrictions concerning women of child-bearing age must be observed.
- 15.2 Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H332 Harmful if inhaled. H400 Very toxic to aquatic life. H412 Harmful to aquatic life with long lasting effects.
- Department issuing SDS:	research & development
- Contact:	research & development

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**- Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**- Sources**

Internet:  
- [www.echa.com](http://www.echa.com)  
- [www.baua.de](http://www.baua.de)  
- [www.gestis.itrust.de](http://www.gestis.itrust.de) (IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance)

**- \* Data compared to the previous version altered.**