

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.06.2018

Version number 7

Revision: 20.06.2018

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

- 1.1 Product identifier
- Trade name:
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the mixture
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

### KEMPERTEC EP5- Primer (B)

Identified use: intended for professional use only!  
Primer

- 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. 1B	H314 Causes severe skin burns and eye damage.
Eye Dam. 1	H318 Causes serious eye damage.
Skin Sens. 1	H317 May cause an allergic skin reaction.
Repr. 2	H361 Suspected of damaging fertility or the unborn child.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

- 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      GHS08

- Signal word

- Hazard-determining components of labelling:

Benzyl alcohol  
3-aminomethyl-3,5,5-trimethylcyclohexylamine  
m-phenylenebis(methylamine)  
2-piperazin-1-ylethylamine  
trimethylhexane-1,6-diamine

- Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful 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.

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- vPvB: Not applicable. (Contd. of page 1)

## SECTION 3: Composition/information on ingredients

### - 3.2 Chemical characterisation: Mixtures

- Description: Mixture: consisting of the following components.

#### - 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: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32	3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	12.5-25%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50	m-phenylenebis(methylamine) Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 140-31-8 EINECS: 205-411-0 Index number: 612-105-00-4 Reg.nr.: 01-2119471486-30	2-piperazin-1-ylethylamine Acute Tox. 3, H311; Repr. 2, H361; STOT RE 1, H372; Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 25620-58-0 EINECS: 247-134-8 Reg.nr.: 01-2119560598-25	trimethylhexane-1,6-diamine Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	0.5-2.5%

- 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.

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

Supply fresh air; consult doctor in case of complaints.

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment in case of complaints.

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

Protect unharmed eye.

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

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:

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

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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**- 6.2 Environmental precautions:**Avoid contact with skin and eyes  
Do not allow product to reach sewage system or any water course.Inform respective authorities in case of seepage into water course or sewage system.  
Prevent from spreading (e.g. by damming-in or oil barriers).**- 6.3 Methods and material for containment and cleaning up:**Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.

Dispose contaminated material as waste according to item 13.

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**Ensure good ventilation/exhaustion at the workplace.  
Store in cool, dry place in tightly closed receptacles.  
Prevent formation of aerosols.**- 7.2 Conditions for safe storage, including any incompatibilities****- Storage:**

Store only in the original receptacle.

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

Store away from foodstuffs.

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

Do not store together with oxidising and acidic materials as well as heavy-metal compounds.

**- Further information about storage conditions:**

Protect from frost.

Store in dry conditions.

Keep container tightly sealed.

Recommended storage temperature: 5-30 °C

8 B

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:**

The lists valid during the making were used as basis.

**- Additional information:****- 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.

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

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.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

After use of gloves apply skin-cleaning agents and skin cosmetics.

**- Material of gloves**

Recommended materials:

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.5$  mm

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.

**- 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



Tightly sealed goggles

Protective goggles and facial protection - Classification according to EN 166

**- Eye 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: 11.5

**- Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

- Flash point: >100 °C

- Flammability (solid, gas): Not applicable.

- Ignition temperature: 380 °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: 13.0 Vol %

- Density at 20 °C: 1.04 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: 150 mPas

Kinematic: Not determined.

- Solvent content:  
VOC (EC) 1.08 %

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- 9.2 Other information	No further relevant information available.
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## 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.
- 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)

#### 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral	LD50	1,030 mg/kg (rat)
Dermal	LD50	1,100 mg/kg (ATE)

#### 1477-55-0 m-phenylenebis(methylamine)

Oral	LD50	940 mg/kg (rat)
Inhalative	LC50/4 h	2.4 mg/l (rat)

#### 140-31-8 2-piperazin-1-ylethylamine

Oral	LD50	2,110 mg/kg (rat) (Union Carbide Data Sheet. Vol. 6/13/1969, GESTIS)
Dermal	LD50	867 mg/kg (rabbit) (Union Carbide Data Sheet. Vol. 6/13/1969, GESTIS)

#### 25620-58-0 trimethylhexane-1,6-diamine

Oral	LD50	900 mg/kg (rat)
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### - 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	May cause an allergic skin reaction.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)	Repr. 2 Based on available data, the classification criteria are not met.
- 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	Based on available data, the classification criteria are not met.
- STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
- 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)

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EC50	2,100 mg/l (Belebtschlamm) (OECD 209; 49h)
NOEC	310 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
<b>2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine</b>	
LC50/96 h	110 mg/l (Brachydanio rerio (Ricefish))
EC50	23 mg/l (daphnia) 15.2 mg/l (Daphnia magna)
EC50	37 mg/l (Scenedesmus subspicatus)
LC 50	87.6 mg/l (oryzias latipes (Ricefish)) (96h)
<b>1477-55-0 m-phenylenebis(methylamine)</b>	
LC50/96 h	87.6 mg/l (oryzias latipes (Ricefish))
EC50	15.2 mg/l (daphnia) (48h)
<b>25620-58-0 trimethylhexane-1,6-diamine</b>	
EC50	31.5 mg/l (Daphnia magna)
- 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.
- Ecotoxicological effects:	
- Remark:	Harmful to fish
- Additional ecological information:	
- General notes:	Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised. Danger to drinking water if even small quantities leak into the ground. Harmful to aquatic organisms 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.
- 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
<b>- European waste catalogue</b>	
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 AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)
- IMDG, IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)

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**- 14.3 Transport hazard class(es)****- ADR****- Class****- Label****- IMDG, IATA****- Class****- Label****- 14.4 Packing group****- ADR, IMDG, IATA**

8 (C7) Corrosive substances.

8

8 Corrosive substances.

8

II

**- 14.5 Environmental hazards:**

Not applicable.

**- 14.6 Special precautions for user**

Warning: Corrosive substances.

**- Danger code (Kemler):**

80

**- EMS Number:**

F-A,S-B

**- Segregation groups**

Alkalies

**- Stowage Category**

A

**- Segregation Code**

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**

1L

**- Limited quantities (LQ)**

Code: E2

**- Excepted quantities (EQ)**

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**- Transport category**

2

**- Tunnel restriction code**

E

**- IMDG**

5L

**- Limited quantities (LQ)**

Code: E1

**- Excepted quantities (EQ)**

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

**- UN "Model Regulation":**

UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (M-PHENYLENEBIS(METHYLAMINE), ISOPHORONEDIAMINE), 8, II

**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.

**- 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 women of child-bearing age must be observed.

Employment restrictions concerning pregnant and lactating women 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.

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**- Relevant phrases**

H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H361 Suspected of damaging fertility or the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H412 Harmful to aquatic life with long lasting effects.

**- Department issuing SDS:**

research &amp; development

**- Contact:**

research &amp; development

**- 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  
Acute Tox. 3: Acute toxicity – Category 3  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Skin Sens. 1: Skin sensitisation – Category 1  
Repr. 2: Reproductive toxicity – Category 2  
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**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.**

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