

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.05.2020



Version number 7

Revision: 28.05.2020

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

- 1.1 Product identifier
- Trade name: **KEMPERTEC EP5-Primer (A)**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against  
Identified use: intended for professional use only!
- Application of the substance / the mixture  
Primer
- 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  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008  
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms  
   
GHS07 GHS09
- Signal word  
Warning
- Hazard-determining components of labelling:  
bis[4-(2,3-epoxypropoxy)phenyl]propane oxirane, mono[(C12-14-alkyloxy)methyl] derivs  
Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.
- Hazard statements  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.
- Precautionary statements  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves / eye protection / face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.  
EUH205 Contains epoxy constituents. May produce an allergic reaction.
- Additional information:
- 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: 1675-54-3 EINECS: 216-823-5 Index number: 603-073-00-2 Reg.nr.: 01-2119456619-26	bis[4-(2,3-epoxypropoxy)phenyl]propane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	50-100%
CAS: 68609-97-2 EINECS: 271-846-8 Index number: 603-103-00-4 Reg.nr.: 01-2119485289-22	oxirane, mono[(C12-14-alkyloxy)methyl] derivs Skin Irrit. 2, H315; Skin Sens. 1, H317	12.5-25%
EC number: 701-263-0 Reg.nr.: 01-2119454392-40	Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	12.5-25%

**- 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:**

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**

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

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

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.

Avoid contact with skin and eyes

Ensure adequate ventilation

**- 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.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

**- 6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## 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:**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
  - **Information about storage in one common storage facility:** Store away from foodstuffs.
  - **Further information about storage conditions:**
    - Protect from frost.
    - Store in dry conditions.
    - Keep container tightly sealed.
    - Recommended storage temperature: 5-30 °C
- **Storage class:** 10
- **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:**

- DNELs		
<b>1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane</b>		
Inhalative	Acute - systemic effects	12.25 mg/m <sup>3</sup> (Worker) (GESTIS DNEL List (June 2018))
<b>68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs</b>		
Inhalative	Acute - systemic effects	3.6 mg/m <sup>3</sup> (Worker) (GESTIS DNEL List (June 2018))

- **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
  - Respiratory protection - Gas filters and combination filters according to (DIN EN 141)

- **Protection of hands:**



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: ≥ 0.5 mm
  - Penetration time (min.): < 480
  - 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.
- **Penetration time of glove material**
  - The determined penetration times according to EN 16523-1:2015 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: ≥ 0.1 mm
  - Penetration time (min.): < 10

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- Eye protection:



Tightly sealed goggles

Protective goggles and facial protection - Classification according to EN 166 protective clothing (EN 13034)

- Body protection:

### SECTION 9: Physical and chemical properties

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

##### - General Information

##### - Appearance:

Form:	Fluid
Colour:	According to product specification
- Odour:	Characteristic
- Odour threshold:	Not determined.

- pH-value: Not determined.

##### - Change in condition

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

- Flash point: &gt;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:	Not determined.
Upper:	Not determined.

- Density at 20 °C: 1.1 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:	500 mPas
Kinematic:	Not determined.

##### - Solvent content:

VOC (EC) 1.28 %

- 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

Violent reactions with: amines and acids.

#### - 10.4 Conditions to avoid

Store away from heat.

#### - 10.5 Incompatible materials:

Amines, acids, alkalis, strong oxidants, alcohols

#### - 10.6 Hazardous decomposition products:

Does not decompose during its intended use.

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### SECTION 11: Toxicological information

#### - 11.1 Information on toxicological effects

##### - Acute toxicity

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

##### - LD/LC50 values relevant for classification:

#### 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

Oral	LD50	>2,000 mg/kg (rat) (OECD Guideline 401 (Acute Oral Toxicity))
Dermal	LD50	>2,000 mg/kg (rat) (OECD Guideline 402 (Acute Dermal Toxicity)) >3,450 mg/kg (rabbit) (OECD Guideline 402 (Acute Dermal Toxicity))

#### 68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Oral	LD50	19,200 mg/kg (rat)
Dermal	LD50	>4,500 mg/kg (rabbit)

#### Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane

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

##### - Primary irritant effect:

##### - Skin corrosion/irritation

Causes skin irritation.

##### - Serious eye damage/irritation

Causes serious eye irritation.

##### - Respiratory or skin sensitisation

May cause an allergic skin reaction.

##### - 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:

#### 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

NOEC 72h	4.2 mg/l (Selenastrum capricornutum)
ErC50	>11 mg/l (Scenedesmus capricornutum) (72h)
LC50/96 h	2 mg/l ((Salmo gairdneri) Regenbogenforelle)
EC50	1.8 mg/l (Daphnia magna) (48 h)
NOEC	0.3 mg/l (Daphnia magna)

#### 68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

EbC50	843 mg/l (Pseudokirchneriella subcapitata)
LC50/96 h	1,800 mg/l (LEPOMUS MACROCHIRUS) >5,000 mg/l (Oncorhynchus mykiss (Regenbogenforelle))
NOEC	500 mg/l (Pseudokirchneriella subcapitata) (NOEC (72 hr))

#### Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane

EC50	1.8 mg/l (ALGAE) (72h)
EC50	2.55 mg/l (Daphnia magna) (48h)
EC50	2.54 mg/l (Leuciscus idus (Goldorfe)) (96h)

##### - 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:

Toxic for fish

##### - Additional ecological information:

##### - General notes:

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

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

##### - PBT:

Not applicable.

##### - vPvB:

Not applicable.

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- 12.6 Other adverse effects

No further relevant information available.

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### 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 10	waste adhesives and sealants other than those mentioned in 08 04 09
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08 02 99	wastes not otherwise specified
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- Uncleaned packaging:

- Recommendation:

Disposal must be made according to official regulations.

### SECTION 14: Transport information

- 14.1 UN-Number

- ADR, IMDG, IATA

UN3082

- 14.2 UN proper shipping name

- ADR

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), Bisphenol F epichlorhydrin resin MW <700)

- IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), Bisphenol F epichlorhydrin resin MW <700), MARINE POLLUTANT

- IATA

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), Bisphenol F epichlorhydrin resin MW <700)

- 14.3 Transport hazard class(es)

- ADR



- Class

9 (M6) Miscellaneous dangerous substances and articles.

- Label

9

- IMDG, IATA



- Class

9 Miscellaneous dangerous substances and articles.

- Label

9

- 14.4 Packing group

- ADR, IMDG, IATA

III

- 14.5 Environmental hazards:

Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

- Marine pollutant:

Symbol (fish and tree)

- Special marking (ADR):

Symbol (fish and tree)

- Special marking (IATA):

Symbol (fish and tree)

- 14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

- Hazard identification number (Kemler code):

90

- EMS Number:

F-A,S-F

- Stowage Category

A

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC

Code

Not applicable.

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**- Transport/Additional information:**

**- ADR**  
**- Limited quantities (LQ)** 5L  
**- Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

**- Transport category** 3  
**- Tunnel restriction code** -

**- IMDG**  
**- Limited quantities (LQ)** 5L  
**- Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

**- UN "Model Regulation":** UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700), BISPHENOL F EPICHLOROHYDRIN RESIN MW <700), 9, III

### 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.

The safety data sheet issued is also compliant with the regulation Annex I of Regulation (EU) no. 453/2010 and Annex II of Regulation (EU) no. 2015/830

**- Relevant phrases** H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H411 Toxic to aquatic life with long lasting effects.

**- Department issuing SDS:** research & development  
**- Contact:** research & 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)  
 DNEL: Derived No-Effect Level (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

**- Sources**  
 - [www.echa.europa.eu](http://www.echa.europa.eu)  
 - [www.baua.de](http://www.baua.de)  
 IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance:  
 - [www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp](http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp)

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- \* Data compared to the previous version  
altered.

- [www.dguv.de/ifa/gestis/gestis-dnel-liste](http://www.dguv.de/ifa/gestis/gestis-dnel-liste)

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