

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.06.2018



Version number 4

Revision: 14.06.2018

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

- 1.1 Product identifier
- Trade name: **EPOCEMENT (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
 - Priming
- 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:
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with(chloromethyl)oxirane and methyloxirane polymer with oxirane 2-aminopropyl methyl
Bisphenol F epichlorohydrin resin MW <700
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
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
- 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: 13463-67-7 EINECS: 236-675-5 Reg.nr.: 01-2119489379-17	titanium dioxide substance with a Community workplace exposure limit	25-50%
CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317	12.5-25%
CAS: 870245-28-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with(chloromethyl)oxirane and methyloxirane polymer with oxirane 2-aminopropyl methyl Skin Sens. 1, H317	10-12.5%
CAS: 9003-36-5 NLP: 500-006-8 Reg.nr.: 01-2119454392-40	Bisphenol F epichlorohydrin resin MW <700 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	2.5-10%
CAS: 7727-43-7 EINECS: 231-784-4 Reg.nr.: 01-2119491274-35	barium sulphate, natural substance with a Community workplace exposure limit	2.5-10%
CAS: 1569-02-4 EINECS: 216-374-5 Index number: 603-177-00-8 Reg.nr.: 01-2119462792-32	1-ethoxypropan-2-ol Flam. Liq. 3, H226; STOT SE 3, H336	0.5-2.5%
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	<0.5%

- **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:** Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Immediately remove any clothing soiled by the product.
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:** If skin irritation continues, consult a doctor.
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.
If symptoms persist consult doctor.
- **After swallowing:**
- **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:** CO₂, 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.

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- **6.2 Environmental precautions:**
 - Avoid contact with skin and eyes
 - Ensure adequate ventilation
 - Inform respective authorities in case of seepage into water course or sewage system.
 - Do not allow to enter sewers/ surface or ground water.
 - 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).
 - Dispose contaminated material as waste according to item 13.
 - Do not flush with water or aqueous cleansing agents
- **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.

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.
 - Use only in well ventilated areas.
- **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.
 - Recommended storage temperature: 5-30 °C
 - Keep container tightly sealed.
- **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:

13463-67-7 titanium dioxide	
WEL	Long-term value: 10* 4** mg/m ³ *total inhalable **respirable
7727-43-7 barium sulphate, natural	
WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust

- **Regulatory information**
 - WEL: EH40/2011
- **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
 - Respiratory protection - Gas filters and combination filters according to 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.

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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

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 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: ≥ 0.1 mm

Penetration time (min.): <10

- Eye protection:



Tightly sealed goggles

- Body protection:

Protective goggles and facial protection - Classification according to EN 166

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: Whitish

- Odour: Characteristic

- Odour threshold: Not determined.

- pH-value: Not determined.

- Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

- Flash point: 89 °C

- Flammability (solid, gas): Not applicable.

- 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: 1.52 g/cm³

- Relative density Not determined.

- Vapour density Not determined.

- Evaporation rate Not determined.

- Solubility in / Miscibility with water: Fully miscible.

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

- Viscosity:

Dynamic at 20 °C: 22000 mPas

Kinematic: Not determined.

- Solvent content:

VOC (EC) 0.40 %

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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 No further relevant information available.
- 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 Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

13463-67-7 titanium dioxide

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rat)

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

Oral	LD50	11,400 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LCLo	1 mg/l (rat)

9003-36-5 Bisphenol F epichlorohydrin resin MW <700

Oral	LD50	23,800 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)

7727-43-7 barium sulphate, natural

Oral	LD50	>15,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

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

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

- 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:

13463-67-7 titanium dioxide

LC50/96 h	>1,000 mg/l (Pimephales promelas)
EC50	>1,000 mg/l (Daphnia magna)
EC50	61 mg/l (Pseudokirchneriella subcapitata)

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

IC50	>42.6 mg/l (Bakterien) (18h)
LC50/96 h	1.5 mg/l (fish) (OECD 203 (96 hr))
	1.5 mg/l (Oncorhynchus mykiss (Regenbogenforelle))

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EC50 (24)	3.6 mg/l (dpa)	
EC50	1.8 mg/l (Daphnia magna) (48h)	
EC50	9.4 mg/l (ALGAE) (EPA CFR (72 hr))	
	1.7 mg/l (daphnia) (OECD 202 (48 hr))	
	11 mg/l (Selenastrum capricornutum) (72h)	
NOEC	0.3 mg/l (Daphnia magna) (21d)	
MATC	0.55 mg/l (Daphnia magna) (21d)	
9003-36-5 Bisphenol F epichlorohydrin resin MW <700		
LC50/96 h	>100 mg/l (fish)	
7727-43-7 barium sulphate, natural		
EC50	32 mg/l (Daphnia magna) (Ba-Ion; 48 h)	
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))	
<ul style="list-style-type: none"> - 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: 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. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms - 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** UN3082
- **14.2 UN proper shipping name**
- **ADR** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorohydrin) epoxy resin (number average molecular weight ≤ 700), Bisphenol F epichlorohydrin resin MW <700)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorohydrin) epoxy resin (number average molecular weight ≤ 700), Bisphenol F epichlorohydrin resin MW <700), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorohydrin) epoxy resin (number average molecular weight ≤ 700), Bisphenol F epichlorohydrin resin MW <700)

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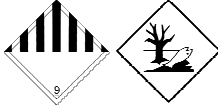
- 14.3 Transport hazard class(es)

- 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:

- Marine pollutant:

- Special marking (ADR):
- Special marking (IATA):

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

- 14.6 Special precautions for user
- Danger code (Kemler):
- EMS Number:
- Stowage Category

Warning: Miscellaneous dangerous substances and articles.
90
F-A,S-F
A

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

Not applicable.

- 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

- IMDG
- Limited quantities (LQ)
- Excepted quantities (EQ)

5L
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

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- **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**
 - H226 Flammable liquid and vapour.
 - H315 Causes skin irritation.
 - H317 May cause an allergic skin reaction.
 - H319 Causes serious eye irritation.
 - H336 May cause drowsiness or dizziness.
 - 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)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - Flam. Liq. 3: Flammable liquids – Category 3
 - 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
 - Skin Sens. 1B: Skin sensitisation – Category 1B
 - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- **Sources**
 - Internet:
 - www.echa.com
 - www.baua.de
 - www.gestis.itrust.de (IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance)
- *** Data compared to the previous version altered.**