

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.04.2023

Version number 11 (replaces version 10)


Revision: 18.04.2023

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


- 1.1 Product identifier
- Trade name: **KEMCO POX 2K (B)**
- UFI: G6Y7-A0WX-G00H-8TT7
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the mixture: Identified use: intended for professional use only!
Coating
- 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: Medical Emergency information in case of poisoning:
Poison Information Center Mainz - 24 h - Phone: +49 (0) 6131 19240
(advisory service in German or English language)

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
- Hazard pictograms



GHS07



GHS09

The product is classified and labelled according to the CLP regulation.
- Signal word: Warning
- Hazard-determining components of labelling:
 - bis[4-(2,3-epoxypropoxy)phenyl]propane
 - Bisphenol F epichlorohydrin resin MW <700
 - oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- 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.
- Additional information: EUH205 Contains epoxy constituents. May produce an allergic reaction.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

Safety data sheet

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Version number 11 (replaces version 10)

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures

- Description: Mixture: consisting of the following components.

- Dangerous components:

CAS: 1675-54-3 EINECS: 216-823-5	bis[4-(2,3-epoxypropoxy)phenyl]propane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	50-100%
CAS: 9003-36-5 NLP: 500-006-8	Bisphenol F epichlorohydrin resin MW <700 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	25-50%
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs 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:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.

- For safety reasons unsuitable extinguishing agents:

Water with full jet

- 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
Nitrogen oxides (NO_x)
Carbon monoxide (CO)

- 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.

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.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.04.2023

Version number 11 (replaces version 10)

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 2)

- 6.3 Methods and material for containment and cleaning up:

Prevent from spreading (e.g. by damming-in or oil barriers).
Do not allow to enter sewers/ surface or ground water.

- 6.4 Reference to other sections

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Do not flush with water or aqueous cleansing agents
Dispose contaminated material as waste according to item 13.
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:

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

- 8.1 Control parameters

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

- DNELs

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

Inhalative	Acute - systemic effects	12.25 mg/m ³ (Worker) (GESTIS DNEL List (June 2018))
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68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Inhalative	Acute - systemic effects	3.6 mg/m ³ (Worker) (GESTIS DNEL List (June 2018))
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- Additional information:

The lists valid during the making were used as basis.

- 8.2 Exposure controls

- Appropriate engineering controls

No further data; see item 7.

- Individual protection measures, such as 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)

- Hand protection

 Protective gloves

Check protective gloves prior to each use for their proper condition.
Only use chemical-protective gloves with CE-labelling of category III.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.04.2023

Version number 11 (replaces version 10)

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 3)

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
Protective gloves contaminated with product must be removed immediately.
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

- Eye/face 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

- Colour:	Colourless
- Odour:	Characteristic
- Odour threshold:	Not determined.
- Melting point/freezing point:	Undetermined.
- Boiling point or initial boiling point and boiling range	>100 °C
- Flammability	Not applicable.
- Lower and upper explosion limit	
- Lower:	Not determined.
- Upper:	Not determined.
- Flash point:	130 °C
- Decomposition temperature:	>200 °C
- pH	Not determined.
- Viscosity:	
- Kinematic viscosity at 20 °C	580-660 mm ² /s
- Dynamic:	Not determined.
- Solubility	
- water:	Not miscible or difficult to mix.
- Partition coefficient n-octanol/water (log value)	Not determined.
- Density and/or relative density	
- Density at 20 °C:	1.13 g/cm ³
- Relative density	Not determined.
- Vapour density	Not determined.

- 9.2 Other information

- Appearance:

- Form: Fluid

- Important information on protection of health and environment, and on safety.

- Auto-ignition temperature: Product is not selfigniting.

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

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.04.2023

Version number 11 (replaces version 10)

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 4)

- Solvent separation test:
- VOC (EC) 0.47 %
- Change in condition
- Evaporation rate Not determined.

- Information with regard to physical hazard classes
- Explosives Void
- Flammable gases Void
- Aerosols Void
- Oxidising gases Void
- Gases under pressure Void
- Flammable liquids Void
- Flammable solids Void
- Self-reactive substances and mixtures Void
- Pyrophoric liquids Void
- Pyrophoric solids Void
- Self-heating substances and mixtures Void
- Substances and mixtures, which emit flammable gases in contact with water Void
- Oxidising liquids Void
- Oxidising solids Void
- Organic peroxides Void
- Corrosive to metals Void
- Desensitised explosives Void

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: strong acids
strong bases
oxidizer
- 10.6 Hazardous decomposition products: Carbon monoxide
Carbon dioxide
Halogenated compounds

SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- 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))

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

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

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

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

- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation May cause an allergic skin reaction.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.04.2023

Version number 11 (replaces version 10)

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 5)

- | | |
|--|---|
| <ul style="list-style-type: none"> - Germ cell mutagenicity - Carcinogenicity - Reproductive toxicity - STOT-single exposure - STOT-repeated exposure - Aspiration hazard - 11.2 Information on other hazards | <p>Based on available data, the classification criteria are not met.</p> <p>Based on available data, the classification criteria are not met.</p> <p>Based on available data, the classification criteria are not met.</p> <p>Based on available data, the classification criteria are not met.</p> <p>Based on available data, the classification criteria are not met.</p> <p>Based on available data, the classification criteria are not met.</p> |
|--|---|

- Endocrine disrupting properties

None of the ingredients is listed.

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	1.5 mg/l ((Salmo gairdneri) Regenbogenforelle)
EC50	1.8 mg/l (Daphnia magna) (48 h)
NOEC	0.3 mg/l (Daphnia magna)

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

LC50/96 h	>100 mg/l (fish)
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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 - 12.3 Bioaccumulative potential - 12.4 Mobility in soil - 12.5 Results of PBT and vPvB assessment - PBT: - vPvB: - 12.6 Endocrine disrupting properties - 12.7 Other adverse effects - Remark: - Additional ecological information: - General notes: | <p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>Not applicable.</p> <p>Not applicable.</p> <p>The product does not contain substances with endocrine disrupting properties.</p> <p>Toxic for fish</p> <p>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.</p> |
|--|--|

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
15 01 10*	packaging containing residues of or contaminated by hazardous substances
17 02 03	plastic

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.04.2023

Version number 11 (replaces version 10)

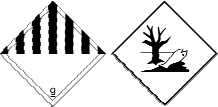

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 6)

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN number or ID number - ADR, IMDG, IATA	UN3082
- 14.2 UN proper shipping name - ADR - IMDG - IATA	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))
- 14.3 Transport hazard class(es) - ADR	
- Class - Label	
- IMDG, IATA	
- Class - Label	
- 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 - Hazard identification number (Kemler code): - EMS Number: - Stowage Category	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A
- 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
- Transport/Additional information: - ADR - Limited quantities (LQ) - Excepted quantities (EQ) - Transport category - Tunnel restriction code - Remarks:	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 (-) Container sizes below 5L =EXEMPT FROM LABELING according special provision 375 ADR Code

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 11 (replaces version 10)

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 7)

<ul style="list-style-type: none"> - IMDG - Limited quantities (LQ) - Excepted quantities (EQ) - Remarks: - UN "Model Regulation": 	<p>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml Container sizes below 5L = EXEMPT FROM LABELING according special provision 2.10.2.7 IMDG Code</p> <p>UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III</p>
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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

- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

- REGULATION (EU) 2019/1148

- Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

- Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

- Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

- Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

- 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. 2020/878.

- **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

- **Date of previous version:** 08.06.2021

- **Version number of previous version:** 10

- **Abbreviations and acronyms:** ADR: Accord relatif au transport international 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)

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.04.2023

Version number 11 (replaces version 10)

Revision: 18.04.2023

Trade name: **KEMCO POX 2K (B)**

(Contd. of page 8)

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
- 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
- www.dguv.de/ifa/gestis/gestis-dnel-liste

- * Data compared to the previous version altered.