

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

1 Identification

- **Product identifier**
- **Trade name: K-Poxy Flexible Epoxy Part B**
- **Article number: KR-580-RC-B**
- **Recommended use and restriction on use**
- **Recommended use:** Coating material
- **Restrictions on use:** No further relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Klein and Company, Inc.
165-167 Hickory Springs Industrial Drive
Canton, GA 30115
(800)241-0681
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child. Route of exposure: Oral.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Additional information:**

There are no other hazards not otherwise classified that have been identified.

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS07 GHS08

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 1)

· **Signal word** Danger

· **Hazard-determining components of labeling:**

4-nonylphenol, branched
2-piperazin-1-ylethylamine
Polyetheramine

· **Hazard statements**

H302+H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child. Route of exposure: Oral.

· **Precautionary statements**

P260 Do not breathe mist/vapors/spray.
P280 Wear protective gloves / protective clothing.
P280 Wear protective gloves/protective clothing/eye protection.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a poison center/doctor if you feel unwell.
P363 Wash contaminated clothing before reuse.
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard description:**

· **WHMIS-symbols:**

D2B - Toxic material causing other toxic effects
E - Corrosive material



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B








(Contd. of page 2)

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

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

84852-15-3	4-nonylphenol, branched   	50-70%
140-31-8	2-piperazin-1-ylethylamine    Flam. Liq. 4, H227	10-35%
9046-10-0	Polyetheramine 	10-35%

Additional information:

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

4 First-aid measures

- 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.
- After inhalation:
Supply fresh air; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
Immediately rinse with water.
If skin irritation or rash occurs: Get medical advice/attention.
Seek immediate medical help for blistering or open wounds.
- After eye contact:
Remove contact lenses if worn, if possible.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 3)

- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
 - Allergic reactions
 - Caustic effect on skin and mucous membranes.
 - Coughing
 - Dizziness
 - Nausea
 - Gastric or intestinal disorders when ingested.
 - Profuse sweating
- **Danger**
 - Danger of disturbed cardiac rhythm.
 - Danger of gastric perforation.
 - Causes serious eye damage.
 - Harmful if swallowed.
 - Harmful if inhaled.
 - May be harmful in contact with skin.
 - Suspected of damaging fertility or the unborn child. Route of exposure: Oral.
- **Indication of any immediate medical attention and special treatment needed**
 - Medical supervision for at least 48 hours.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 - Foam
 - Gaseous extinguishing agents
 - Water fog / haze
 - Carbon dioxide
 - Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents:**
 - Water spray
 - Water stream.
- **Special hazards arising from the substance or mixture**
 - During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.
- **Additional information**
 - Use large quantities of foam as it is partially destroyed by the product.
 - Cool endangered receptacles with water fog.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Use respiratory protective device against the effects of fumes/dust/aerosol.
 - Wear protective equipment. Keep unprotected persons away.
 - Ensure adequate ventilation.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 4)

- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **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.
Send for recovery or disposal in suitable receptacles.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Do not store together with acids.
Store away from oxidizing agents.
Store away from metals.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from humidity and water.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 5)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Engineering controls:** No further relevant information available.
- **Breathing equipment:**
Use suitable respiratory protective device when aerosol or mist is formed.
Use suitable respiratory protective device when high concentrations are present.
NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.
- **Protection of hands:**



Protective gloves

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

- **Material of gloves**
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Contact lenses should not be worn.



Safety glasses

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**
No further relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	According to product specification
Odor:	Amine-like

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 6)

- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
 - Melting point/Melting range:** Undetermined.
 - Boiling point/Boiling range:** > 199 °C (> 390 °F)
- **Flash point:** > 94 °C (> 201 °F) (Closed Cup)
- **Flammability (solid, gaseous):** Not applicable.
- **Auto-ignition temperature:** >150 °C (>302 °F) (Estimate)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Oxidizing properties** Non-oxidizing.
- **Vapor pressure at 93.3 °C (200 °F):** ~ 1.3 hPa (~ 1 mm Hg)
- **Density at 20 °C (68 °F):** 0.99 g/cm³ (8.262 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**
 - Water:** Partly soluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
 - Toxic fumes may be released if heated above the decomposition point.
 - Strong exothermic reaction with acids.
 - Reacts with oxidizing agents.
 - Reacts with aluminium at raised temperatures.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 7)

- **Hazardous decomposition products:**
Under fire conditions only:
Carbon monoxide and carbon dioxide
Nitrogen oxides

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

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

Oral	LD50	2140 mg/kg (rat)
Dermal	LD50	880 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Subacute to chronic toxicity:** No further relevant information available.
- **Additional toxicological information:**
Harmful
Corrosive
Irritant
Danger through skin absorption.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Toxic and/or corrosive effects may be delayed up to 24 hours.

- **Carcinogenic categories**

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Probable Routes of Exposure**

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):**

Harmful if swallowed.
Causes severe skin burns and eye damage.
Harmful if inhaled.
May be harmful in contact with skin.

- **Repeated Dose Toxicity:**

Repeated exposures may result in skin and/or respiratory sensitivity.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

Suspected of damaging fertility or the unborn child. Route of exposure: Oral.

(Contd. of page 8)

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Toxic for aquatic organisms
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
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
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Waste disposal key:** EPA RCRA Code (USA) : D002 .
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
 - **DOT**
 - **ADR, IMDG, IATA**
- UN1719
Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.
UN1719

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 9)

· UN proper shipping name



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 L (1.3 gal).

· DOT

Caustic alkali liquids, n.o.s. (4-nonylphenol, branched, N-Aminoethylpiperazine), MARINE POLLUTANT

· ADR

1719 CAUSTIC ALKALI LIQUID, N.O.S. (4-nonylphenol, branched, N-AMINOETHYLPIPERAZINE), ENVIRONMENTALLY HAZARDOUS

· IMDG

CAUSTIC ALKALI LIQUID, N.O.S. (4-nonylphenol, branched, N-AMINOETHYLPIPERAZINE), MARINE POLLUTANT

· IATA

Caustic alkali liquid, n.o.s. (4-nonylphenol, branched, N-Aminoethylpiperazine)

· Transport hazard class(es)

· DOT



· Class

8 Corrosive substances

· Label

8

· ADR



· Class

8 (C5) Corrosive substances

· Label

8

· IMDG



· Class

8 Corrosive substances

· Label

8

· IATA



· Class

8 Corrosive substances

· Label

8

· Packing group

· DOT, ADR, IMDG, IATA

III

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 10)

· Environmental hazards:	
· Marine pollutant:	Yes
	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· Remarks:	Special marking with the symbol (fish and tree).

· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

· 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":	UN1719, Caustic alkali liquids, n.o.s. (4-nonylphenol, branched, N-Aminoethylpiperazine), ENVIRONMENTALLY HAZARDOUS, 8, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

(Contd. on page 12)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 11)

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **State Right to Know Listings**

None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

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

· **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

· **Date of preparation / last revision** 04/10/2015 / -

· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

(Contd. on page 13)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 04/10/2015

Reviewed on 04/10/2015

Trade name: K-Poxy Flexible Epoxy Part B

(Contd. of page 12)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 4: Flammable liquids, Hazard Category 4

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Repr. 2: Reproductive toxicity, Hazard Category 2

Sources

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com