

Material Safety data sheet according to 1907/2006/EC, Article 31

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

1.1 Product identifier

Trade name: Epoxy Resin

CAS Number: 25085-99-8

• NLP Number: 500-033-5

• 1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

• Application of the substance / the mixture Epoxy resin

• **1.3 Details of the supplier of the safety data sheet Supplier:**

Oxford Instruments NanoAnalysis

Halifax Rd, High Wycombe HP12 3SE

United Kingdom

Tel: +44 (0) 1494 442255

• Further information obtainable from: Technical Support

SECTION 2: Hazards Identification

• **2.1 Classification of the substance or mixture:**

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H411. Environment: Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects. 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.

• Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant - R36/38: Irritating to eyes and skin. Xi; Sensitising - R43: May cause sensitisation by skin contact. N; Dangerous for the environment

Signal word Warning:

• Hazard-determining components of label: Reaction products of Epichlorohydrin & Bisphenol A
Hazard statements: The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H411.

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: P280 Wear protective gloves / eye protection.

P264 Wash thoroughly after handling. 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.

P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national regulations.

• WHMIS-symbols: D2B - Toxic material causing other toxic effects

SECTION 3: Composition/information on ingredients

3.1 Substances

• CAS No. Description: 25085-99-8 Reaction products of Epichlorohydrin and Bisphenol A

• Identification number(s)

• NLP Number: 500-033-5 2

Trade name: Epoxy Resin

SECTION 4: First aid measures

4.1 Description of first aid measures

- General information: Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact: Do not pull solidified product off the skin.

Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, see a doctor.

- **After eye contact:** Remove contact lenses if worn.

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

- **After swallowing:** Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed: Headache, Dizziness, Allergic reactions, Gastric or intestinal disorders when ingested. Nausea in case of ingestion. Irritant to skin and mucous membranes. Irritant to eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains Reaction products of Epichlorohydrin and Bisphenol A. May produce an allergic reaction.

Medical supervision for at least 48 hours

SECTION 5: Firefighting Measures

5.1 Extinguishing media: Suitable extinguishing agents: Water haze or fog, Foam, Fire-extinguishing powder, Carbon dioxide.

For safety reasons unsuitable extinguishing agents: Water with full jet, Water spray

• 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:

Wear self-contained respiratory protective device.

Wear fully protective suit: Additional information No further relevant information available.

SECTION 6: Accidental release measures

6.1 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

• 6.2 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.

• 6.3 Methods and material for containment and cleaning up:

Allow to solidify. Pick up mechanically. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Prevent formation of aerosols. Avoid splashes or spray in enclosed areas. Use only in well ventilated areas. Information about fire - and explosion protection: No special measures required. 7.2 Conditions for safe storage, including any incompatibilities

• Storage: Requirements to be met by storerooms and receptacles: 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 oxidizing and acidic materials.

• Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles. 7.3 Specific end use(s) No further relevant information available

Trade name: Epoxy Resin

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: Not required.
- 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.

• Respiratory protection: Not required

• **Protection of hands:** Protective Gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

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

• 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:** Safety glasses

• **Body protection:** Protective work clothing

• Limitation and supervision of exposure into the environment. No further relevant information available. Risk management measures

See Section 7 for additional information.

No further relevant information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

• General Information: Appearance: Form: Liquid. Colour: Clear to straw color.

• Odour: Mild, Odour threshold: Not determined.

• pH-value: Not determined. Change in condition Melting point/Melting range: Not Determined.

Boiling point/Boiling range: >392 °F / >200 °C. Flash point: >392 °F / >200 °C

• Flammability (solid, gaseous): Not applicable.

• Auto/Self-ignition temperature: Not determined. Decomposition temperature: Not determined.

• Self-igniting: Not determined. Danger of explosion: Product does not present explosion hazard.

• Explosion limits: Lower: Not determined. Upper: Not determined.

• Vapour pressure at 25 °C: <0,1 mmHg • Density at 20 °C: 0,995 g/cm³

• 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: Not determined.

Kinematic: Not determined.

• 9.2 Other information No further relevant information available

Trade name: Epoxy Resin

SECTION 10: Stability and reactivity

10.1 Reactivity

- 10.2 Chemical stability: Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions: Reacts with strong acids and oxidizing agents. Reacts with catalysts. Reacts with peroxides and other radical forming substances. Reacts with amines. Exothermic polymerization. Toxic fumes may be released if heated above the decomposition point.
- 10.4 Conditions to avoid: Keep ignition sources away - Do not smoke. Store away from oxidizing agents.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

- Acute toxicity: Primary irritant effect: On the skin: Irritant to skin and mucous membranes.
- On the eye: Irritating effect. Sensitization: Sensitization possible through skin contact.
- Additional toxicological information: Danger through skin adsorption. Toxic and/or corrosive effects may be delayed up to 24 hours. The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant
- Repeated dose toxicity: Repeated exposures may result in skin and/or respiratory sensitivity.

SECTION 12: Toxicological Information

12.1 Toxicity: Aquatic toxicity: Toxic for aquatic organisms

- 12.2 Persistence and degradability Not easily biodegradable
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects: Toxic for fish: Due to mechanical actions of the product (e.g. agglutinations) damages may occur. The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.
- Additional ecological information: General notes: Avoid transfer into the environment. 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: Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- 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. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulation. Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.