

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING:

1.1 Product identifier

Product Name **Epoxy Prime 100 - Resin**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Resin. Adhesive.

1.3 Details of the supplier of the safety data sheet

Supplier Eli-Chem Resin UK Ltd T/A FixMaster
212 Dunsfold Park
Canada Avenue
Cranleigh
GU6 8GA
United Kingdom
01483 266636
sales@FixMaster.co.uk

1.4 Emergency telephone number

01483 266636 (office hours only)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards Not classified.
Human health. Skin irrit. 2 – H315: Eye irrit. 2 – H319; Skin Sens. 1 – H317
Environment. Aquatic Chronic 2 – H411 Classification (1999/45/EEC) Xi: R36/38,
R43. N; R51/53.

The full text for all R-phrases and Hazard statements are displayed in Section 16.

2.2 Label elements

Contains BISPHENOL F TYPE EPOXY RESIN
EPOXY RESIN (Number average MW <= 700)
OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS
Label In Accordance With (EC) No. 1272/2008



Signal Word	Warning
Hazard Statements	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.
Precautionary Statements	P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+351-338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P313 Get medical advice/attention. P501 Dispose to licensed waste disposal site in accordance with local Waste Disposal Authority.
Supplemental label information	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash ... thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. IF ON SKIN: Wash with plenty of soap and water. P321 Specific treatment (see ... on this label). P332+313 If skin irritation occurs: Get medical advice/attention. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P337 If eye irritation persists: P362 Take off contaminated clothing and wash before reuse. P363 Wash contaminated clothing before reuse. P391 Collect spillage.
Supplemental label information	EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

BISPHENOL F TYPE EPOXY RESIN		15 – 17%
CAS-No.: 28064-14-4	EC No:	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	Classification 67/548/EEC R43 Xi; R36/38 N; R51/53	

EPOXY RESIN (Number average MW <= 700)		70 - 80%
CAS-No.: 25068-38-6 EC No: 500-033-5		
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Anuatic Chronic 2 - H411	Classification 67/548/EEC R43 Xi; R36/38 N; R51/53	

OXIRANE, MONO (C12-14- ALKYLOXY)METHYL) DERIVS		15 - 17%
CAS-No.: 68609-97-2 EC No:		
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Skin Sens. 1 - H317	Classification 67/548/EEC R43 Xi; R36/38	

The full text for all R-phrases and hazard statements are displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information

CAUTION! First aid personnel must be aware of own risk during rescue! Consult a physician for specific advice.

Inhalation

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion

DO NOT INDUCE VOMITING! Get medical attention immediately!

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water: Get medical attention if any discomfort continues.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation

May cause irritation to the respiratory system.

Ingestion

No specific symptoms noted.

Skin contact

Skin irritation. Allergic rash.

Eye contact

Irritating and may cause redness and pain.

4.3 Indication of any immediate medical attention and special treatment needed

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Inhalation

May cause irritation to the respiratory system.

Ingestion

No specific symptoms noted.

Skin contact

Skin irritation. Allergic rash.

Eye contact

Irritating and may cause redness and pain.

5.2 Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

Heat may cause the containers to explode.

Specific hazards

In case of fire, toxic gases may be formed. Phenolic. Carbon monoxide (CO). Water.

5.3 Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Water spray should be used to cool containers. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control. Dike and collect extinguishing water.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet. Do not smoke, use open fire or other sources of ignition. Avoid inhalation of vapours and contact with skin and eyes.

6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Absorb with sand or other inert absorbent. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, sparks and open flame. Wear full protective clothing for prolonged exposure and/or high concentrations. Provide good ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs. Keep away from heat, sparks and open flame.

7.2 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

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7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs.

Keep away from heat, sparks and open flame.

7.3 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredient Comments

No exposure limits noted for ingredient(s).

8.2 Exposure controls

Protective equipment



Engineering measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

In case of inadequate ventilation use suitable respirator.

Hand protection

Protective gloves are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection

Wear goggles/face shield.

Other Protection

Provide eyewash station and safety shower.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash hands after contact.

Wash hands after handling.

Skin protection

Wear apron or protective clothing in case of contact.

Environmental Exposure Controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	Various colours
Odour	Mild
Solubility	Insoluble in water
Initial boiling point and boiling range (°C)	>200
Relative density	1.12 g/cm ³ 20 C
Evaporation rate	Not available
Viscosity	1200 – 1600 cP 25 C
Decomposition temperature (°C)	Not available
Odour threshold, lower	Not available
Odour threshold, upper	Not available
Flashpoint (°C)	> 150 CC (Closed cup)
Auto ignition temperature (°C)	Not determined
Flammability Limit – lower (%)	Not determined
Flammability Limit – upper (%)	Not determined
Partition Coefficient (N-Octanol/Water)	log Pow - 3.242 (CAS 25068-38-6) 3-5 (CAS 28064-14-4) 3.77 (CAS 68609-97-2)
Explosive properties	No data available
Oxidising properties	Not available

9.2 Other Information

Not available. Not determined.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No specific reactivity hazards associated with this product.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

Hazardous Polymerisation

May polymerise.

Polymerisation Description

Avoid heat. Avoid contact with: Amines.

10.4 Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

Material to avoid

Strong acids. Strong oxidizing substances. Amines. Strong alkalis.

10.6 Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Phenolic. Water. Carbon monoxide (CO).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxic Dose 1 - LD 50

>2000 mg/kg (oral rat)

Other Health Effects

This substance has no evidence of carcinogenic properties.

Acute toxicity:

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)

Not determined.

Respiratory or skin sensitisation:

Skin sensitisation

Guinea Pig

Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Not available.

Genotoxicity - In Vivo

Not available.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Not available.

Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure:

STOT - Single exposure

Not available.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

Not available.

Inhalation

May cause irritation to the respiratory system.

Ingestion

No specific health warnings noted.

Skin contact

Irritating to skin. May cause sensitization by skin contact.

Eye contact

Irritating to eyes.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

12.1 Toxicity

LG 50, 96 Hrs, Fish mg/l (GAS 25068-38-6) 2 mg/l (GAS 68609-97-2) >5000 mg/l

EC 50, 48 Hrs. Daphnia, mg/l (GAS 25068-38-6) 2 mg/l (GAS 68609-97-2) >5000 mg/l

Acute Toxicity - Aquatic Plants Not available.

Acute Toxicity – Microorganisms Not available.

Chronic Toxicity - Fish Early life Stage Not available.

Chronic Toxicity - Aquatic Invertebrates NOEC 21 days (GAS 25068-38-6) 0.3 mg/l Daphnia magna
Acute Toxicity – Terrestrial Not available.

12.2 Persistence and degradability

Degradability

The product is not readily biodegradable.

Biodegradation

Degradation (12%) (GAS 25068-38-6) 28 days

Degradation (87%) (GAS 68609-97-2) 28 days

12.3 Bioaccumulative potential

Bioaccumulation factor

BCF 160 (GAS 68609-97-2)

Partition coefficient

log Pow - 3.242 (CAS 25068-38-6) 3-5 (GAS 28064-14-4) 3.77 (GAS 68609-97-2)

12.4 Mobility in soil

Mobility:

No data available.

Absorption/desorption Coefficient

Soil Koc - 1, 800-4, 400 (GAS 25068-38-6) >5000 (GAS 68609-97-2)

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1 Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

UN No. (ADRIRID/ADN) 3082

UN No. (IMDG) 3082
UN No. (ICAO) 3082

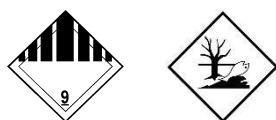
14.2 UN proper shipping name

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)

14.3 Transport hazard class(es)

ADR/RID/ADN Class 9
ADR/RID/ADN Class Class 9: Miscellaneous dangerous substances and articles.
ADR Label No. 9
IMDG Class 9
ICAO Class/Division 9

Transport labels



14.4 Packing group

ADR/RID/ADN Packing group III
IMDG Packing group III
ICAO Packing group III

14.5 Environmental hazards

Environmentally Hazardous substance/marine pollutant



14.6 Special precautions for user

EMS F-A, S-F
Emergency Action Code 3Z
Hazard No. (ADR) 90
Tunnel Restriction Code (E)

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Uk Regulatory References

Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments. Chemicals (Hazard Information & Packaging) Regulations.

Environmental Listing

Control of Pollution Act 1974. Rivers (Prevention of Pollution) Act 1961. Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.1 2009 No. 716). Control of Substances Hazardous to Health.

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

CHIP for everyone HSG(108). Introduction to Local Exhaust Ventilation HS(G)37. Workplace Exposure Limits EH40.

EU Legislation

Dangerous Preparations Directive 1999/45/EC.

National Regulations

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689. Workplace Exposure Limits 2005 (EH40)

Health and Safety at Work Act (As Amended) 1974

Control of Substances Hazardous to Health Regulations 2002 (as amended)

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Risk Phrases In Full

R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

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.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING:

1.1 Product identifier

Product Name **Epoxy Prime 100 - Hardener**

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 Hardening agent/ Curing agent

1.3 Details of the supplier of the safety data sheet

Supplier Eli-Chem Resin UK Ltd T/A FixMaster
212 Dunsfold Park
Canada Avenue
Cranleigh
Surrey
GU6 8GA
01483 266636
sales@FixMaster.co.uk

1.4 Emergency telephone number

01483 266636 (office hours only)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Repr. 2 H361f Suspected of damaging fertility.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.

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

C; Corrosive

R34: Causes burns.

Xn; Harmful

R20/22-62: Harmful by inhalation and if swallowed. Possible risk of impaired fertility.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008.

The product is classified and labeled according to the CLP regulation.

Hazard pictograms



GHS08



GHS05



GHS07

Signal word Danger

Hazard-determining components of labeling:

3-aminomethyl-3,5,5-trimethylcyclohexylamine

bisphenol A

m-phenylenebis(methylamine)

3-aminopropylidimethylamine

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H361f Suspected of damaging fertility.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): 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.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

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

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 characterization: Mixtures

Description: stabilized amine hardener for epoxy resins

CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Ref. No. 01-2119492630-38-xxxx	Benzyl alcohol Xn R20/22 Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319	25--50%
CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-xxxx	3-aminomethyl-3,5,5-trimethylcyclohexylamine C R34; Xn R21/22; Xi R43, R52/53 Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50-xxxx	m-phenylenebis(methylamine) C R34; Xn R20/22; Xi R43 R52/53 Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 80-05-7 EINECS: 201-245-8 Index number: 604-030-00-0 Reg.nr.: 01-2119457856-23-xxxx	bisphenol A Xn R62; Xi R37-41; Xi R43 R52 Repr. Cat. 3 Repr. 2, H361f; Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%
CAS: 109-55-7 EINECS: 203-680-9 Index number: 612-061-00-6 Reg.nr.: 01-2119486842-27-xxxx	3-aminopropyldimethylamine C R34; Xn R21/22-48; Xi R37; Xi R43 R10 Flam. Liq. 3, H226; Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0 Reg.nr.: 01-2119560597-27-xxxx	2,4,6-tris(dimethylaminomethyl)phenol C R34 R52/53 Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%

The full text for all R-phrases and hazard statements are displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information Instantly remove any clothing soiled by the product.

After Inhalation Take affected persons in the open air and position comfortably. Seek medical treatment in case of complaints.

After skin contact Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.

After Ingestion Instantly call for doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

Information for doctor No particular measures are known – treat according to symptoms.

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, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

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 Put on breathing apparatus.

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 clothing.

6.2 Environmental precautions

Do not allow product to reach sewage system or water bodies. Do not allow to enter the ground/soil.

6.3 Methods and material for containment and cleaning up

Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.

6.4 Reference to other sections

Clean the accident area carefully.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

The usual precautionary measures for handling chemicals must be observed. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers: Store only in the original container. Provide floor trough without outlet.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see item 7.

8.1 Control parameters

Components with that 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.

DNELs		
100-51-6 Benzyl alcohol		
Dermal	DNEL – worker	9.5 mg/kg / bw/d (-) (langfristig)
Inhalative	DNEL – worker	90 mg/m ³ (-) (langfristig)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
Inhalative	DNEL – worker	20.1 mg/m ³ (-)
80-05-7 bisphenol A		
Dermal	DNEL – worker	1.4 mg/kg / bw/d (-)
Inhalative	DNEL – worker	10 mg/m ³ (-)
109-55-7 3-aminopropyl dimethylamine		
Inhalative	DNEL – worker	9.8 mg/m ³ (-)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Inhalative	DNEL – worker	0.31 mg/m ³ (-)

PNECs		
100-51-6 Benzyl alcohol		
PNEC (predicted no effect concentration)		1 mg/l (freshwater) 0.1 mg/l (seawater)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
PNEC (predicted no effect concentration)		0.6 mg/l (freshwater) 0.006 mg/l (seawater)
1477-55-0 m-phenylenebis(methylamine)		
PNEC (predicted no effect concentration)		0.094 mg/l (freshwater) 0.0094 mg/l (seawater)
80-05-7 bisphenol A		

PNEC (predicted no effect concentration)	0.018 mg/l (freshwater) 0.016 mg/l (seawater)
109-55-7 3-aminopropyldimethylamine	
PNEC (predicted no effect concentration)	0.0535 mg/l (freshwater) 0.00535mg/l (seawater)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol	
PNEC (predicted no effect concentration)	0.74 mg/l (freshwater)

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and food. Take off immediately all contaminated clothing. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

Breathing equipment: Use breathing protection in case of insufficient ventilation.

Recommended filter device for short term use:



Combination filter A-P2

Protection of hands:



Plastic gloves

Only use chemical-protective gloves with CE-labelling of category III. To minimize the wetness in the glove due to perspiration changing of gloves during a shift is required. Check the permeability prior to each renewed use of the glove. Preventative skin protection by use of skin-protecting agents is recommended.

Material of gloves

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

Recommended thickness of the *material*: $\geq 0.5 \text{ mm}$

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. As the product is a preparation of several substances, the resistance of the glove material cannot 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.

As protection from splashes gloves made of the following materials are suitable: PVC gloves

Not suitable are gloves made of the following materials:

Leather gloves

Strong gloves

Eye protection:



Tightly sealed safety glasses

Body protection: Protective work clothing

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General information

Appearance	Fluid
Colour	Yellowish
Odour	Amine-like
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	ca. 135°C
Flashpoint	ca. 86°C
Ignition temperature	380°C
Self-inflammability	Product is not self-igniting
Danger of explosion	Product is not explosive
Critical values for explosion:	
Lower	1.3 Vol %
Upper	13.0 Vol %
Vapour pressure at 20 °C	0.3 hPa
Density at 20 °C	1.02 g/cm ³ (ISO 2811-2)
Solubility in/Miscibility with Water	Not miscible or difficult to mix
Viscosity: dynamic at 20 °C	600 mPas (ISO 3219)

9.2 Other Information

No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

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 oxidizing agents.

10.6 Hazardous decomposition products

In the event of fire:

Poisonous gases/vapours

Corrosive gases/vapours

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxic Dose 1 - LD 50

>2000 mg/kg (oral rat)

Other Health Effects

This substance has no evidence of carcinogenic properties.

Acute toxicity:

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)

Not determined.

Respiratory or skin sensitisation:

Skin sensitisation

Guinea Pig

Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Not available.

Genotoxicity - In Vivo

Not available.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Not available.

Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure:

STOT - Single exposure

Not available.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

Not available.

Inhalation

May cause irritation to the respiratory system.

Ingestion

No specific health warnings noted.

Skin contact

Irritating to skin. May cause sensitization by skin contact.

Eye contact

Irritating to eyes.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

LG 50, 96 Hrs, Fish mg/l	(GAS 25068-38-6) 2 mg/l (GAS 68609-97-2) >5000 mg/l
EC 50, 48 Hrs. Daphnia, mg/l	(GAS 25068-38-6) 2 mg/l (GAS 68609-97-2) >5000 mg/l
Acute Toxicity - Aquatic Plants	Not available.
Acute Toxicity – Microorganisms	Not available.
Chronic Toxicity - Fish Early life Stage	Not available.
Chronic Toxicity - Aquatic Invertebrates	NOEC 21 days (GAS 25068-38-6) 0.3 mg/l Daphnia magna
Acute Toxicity – Terrestrial	Not available.

12.2 Persistence and degradability

Degradability

The product is not readily biodegradable.

Biodegradation

Degradation (12%) (GAS 25068-38-6) 28 days

Degradation (87%) (GAS 68609-97-2) 28 days

12.3 Bioaccumulative potential

Bioaccumulation factor

BCF 160 (GAS 68609-97-2)

Partition coefficient

log Pow - 3.242 (CAS 25068-38-6) 3-5 (GAS 28064-14-4) 3.77 (GAS 68609-97-2)

12.4 Mobility in soil

Mobility:

No data available.

Absorption/desorption Coefficient

Soil Koc - 1, 800-4, 400 (GAS 25068-38-6) >5000 (GAS 68609-97-2)

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1 Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

UN No. (ADR/RID/ADN)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082

14.2 UN proper shipping name

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)

14.3 Transport hazard class(es)

ADR/RID/ADN Class	9
ADR/RID/ADN Class	Class 9: Miscellaneous dangerous substances and articles.
ADR Label No.	9
IMDG Class	9
ICAO Class/Division	9

Transport labels



14.4 Packing group

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III

14.5 Environmental hazards

Environmentally Hazardous substance/marine pollutant



14.6 Special precautions for user

EMS	F-A, S-F
Emergency Action Code	3Z
Hazard No. (ADR)	90
Tunnel Restriction Code (E)	

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Uk Regulatory References

Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments. Chemicals (Hazard Information & Packaging) Regulations.

Environmental Listing

Control of Pollution Act 1974. Rivers (Prevention of Pollution) Act 1961. Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

CHIP for everyone HSG(108). Introduction to Local Exhaust Ventilation HS(G)37. Workplace Exposure Limits EH40.

EU Legislation

Dangerous Preparations Directive 1999/45/EC.

National Regulations

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689. Workplace Exposure Limits 2005 (EH40)

Health and Safety at Work Act (As Amended) 1974

Control of Substances Hazardous to Health Regulations 2002 (as amended)

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Risk Phrases In Full

R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

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.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.