

MATERIAL SAFETY DATA SHEET

EPOXY COATING AS - PACK A

1. Identification of the substance/preparation and company.

Product Name : Epoxy Products Epoxy Coating AS - Pack A
Product Type : Epoxy Resin
Application : Epoxy Resin Floor Coating.
Supplier : Telephone Number: (01202) 891899
Epoxy Products Limited, 7 Ferndown Industrial Estate, Wimborne, Dorset. BH21 7RZ England

2. Hazards Identification

Main Hazards Irritant
Dangerous for the environment.

Human Health Hazards Irritating to eyes and skin. May cause sensitisation by skin contact
Safety Hazards Not classified as flammable but will burn
Environmental Hazards Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

3. Composition/Information on Ingredients

Chemical Nature Mixture of epoxy resin liquids

Preparation - Hazardous Ingredients (Europe)

Component	CAS/EINECS	Concentration %	Classification	Risk Phrases
Epoxy Resin Bisphenol Type A (Mol.Wt.<700)	25068-38-6	60-70	Xi, N	R36/38, R43, R51/53
Epoxy Resin Bisphenol Type F (Mol. Wt.=<700)	28064-14-4	30-40	Xi, N	R36/38, R43, R51/53
Aliphatic glycidyl ether	68609-97-2	2.50 - 10.00	Xi, N	R38, R43, R51/53

4. first-aid Measures

Eye Contact Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to ensure water contact with entire surface of eyes and lids. Seek immediate medical attention.

Skin Contact Wipe off as much as possible with a clean cloth. Wash skin with thoroughly with soap and water. Solvents should not be used to clean the skin because they may increase the penetration of the material.

Ingestion Wash out mouth with water. If accidentally swallowed, give large quantities of water or milk or dilute the effects on the stomach. Do not. Induce vomiting. Seek immediate medical attention.

Inhalation Remove from exposure to fresh air. In cases of possible respiratory irritation or if feeling unwell in cases of prolonged exposure, obtain medical attention.

5. Fire-fighting Measures

Extinguishing Media Use foam, water spray or carbon dioxide.
Extinguishing Media – Not suitable Do not use water jet.
Special Hazards of Product Combustion will produce smoke, carbon dioxide and carbon monoxide.
Protective Equipment for Fire-Fighting Wear full protective clothing and self-contained breathing apparatus.

6. Accidental Release Measures

Personal Precautions Avoid contact with skin, eyes and clothing
Environmental Precautions and Clean-up methods Try to prevent the material from entering the drains or water courses.
Spillages Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal

7. Handling and Storage

Handling Avoid contact with eyes, skin and clothing
Storage Store in the original container securely closed.
Storage temperature Ambient

8. Exposure Controls/Personal Protection

Engineering Control Measures Use of the basic principles of Industrial Hygiene will enable this material to be used safely.
Respiratory Protection Not normally required. In confined areas a half mask respirator with organic vapour cartridge and particulate filter NPF 20 (gas only)
Hand Protection Butyl or nitrile type gloves or any impermeable gloves must be worn. The inside of the gloves must be kept clean
Eye Protection Safety eye glasses must be worn.
Skin and Body Protection Standard issue work clothes.

9. Physical and Chemical Properties

Physical State Liquid
Colour Various
Odour Slight
Ph ca. 7
Boiling Point >200° C
Flash Point >150° C
Auto Ignition Temperature >300° C
Vapour Pressure < 0,01 Pa at 20° C
Water Solubility Negligible
Density 1.80g/cm³ at 20° C
Viscosity Not applicable

10. Stability and Reactivity

Conditions to avoid Caustic soda can induce vigorous polymerisation at temperatures around 200°C.

Materials to avoid	Strong oxidising agents. Caustic soda.
Hazardous Decomposition Products	Hazardous decomposition products are not expected to form during normal storage.
Hazardous Reactions	Stable under normal use conditions. Reacts with strong oxidising agents. Polymerises exothermically with amines, mercaptans at ambient temperatures. Polymerises in contact with caustic soda. Reacts exothermically with bases (eg. caustic soda), ammonia, primary and secondary amines, alcohols and acids.

11. Toxicological Information

Acute Oral Toxicity	Expected to be of low toxicity. LD50 > 2000 mg/kg
Acute Dermal Toxicity	Expected to be of low toxicity. LD50 > 2000 mg/kg
Eye Irritation	Expected to be slightly irritant.
Skin Irritation	Expected to be slightly irritant.
Sensitisation	Expected to be a skin sensitiser.
Carcinogenicity	Not expected to be carcinogenic.
Mutagenicity	Not considered to be a mutagenic hazard.

12. Ecological Information

<u>Persistence/Degradability</u>	
Biodegradable	This product is expected to be not readily biodegradable.
Bioaccumulation	Has the potential to bioaccumulate.
<u>Ecotoxicity Effects</u>	
Toxicity to fish	Expected to be very toxic. LC/EC/IC 50 > 1 mg/l
Toxicity to algae	Expected to be toxic 1. LC/EC/IC 50 > 10 mg/l
Acute toxicity to invertebrates	Expected to be toxic 1. LC/EC/IC 50 > 10 mg/l
Mobility	The product is insoluble in water and sinks in water.
Sewage treatment	Expected to be practically non toxic 1. LC/EC/IC 50 > 100 mg/l
Basis for assessment	Information given is based on knowledge of all the components and the toxicology of similar products

13. Disposal

Product Disposal	Recover and recycle if possible. Arrange for disposal via a licensed waste contractor.
Container Disposal	Dispose of containers with care. Empty packaging should be removed by a licensed waste contractor.
Local legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

14. Transport Information

ADR / RID

UN Number	3082
Class	9
Classification Code	M6
Packaging Group	111
Labelling Number	9
Risk Number	90
Description of the goods contains	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. EPOXY RESIN

ICAO / IATA-DGR

UN Number	3082
Class	9
Packaging Group	111
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. EPOXY RESIN

IMDG

UN Number	3082
Class	9
Packaging Group	111
Labelling Number	9
Description of the goods contains	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. EPOXY RESIN

15. Regulatory Information

Labelling according to EC Directives	EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT < 700)
Classification	Irritant Dangerous for the environment

Symbol (s)



X – IRRITANT



N - DANGEROUS FOR THE ENVIRONMENT

Risk Phrases - R	R36/38	Irritating to eyes and skin
	R43	May cause sensitisation by skin contact.
	R51/53	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
Safety Phrases - S	S24	Avoid contact with skin
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S28A	After contact with skin, wash immediately with plenty of water.
	S37/39	Wear suitable gloves and eye/face protection.
	S46	If swallowed seek medical advice immediately and show this container or label.

S61

Avoid release to the environment. Refer to special instructions/safety data sheet.

Notification Status

TSCA

All components listed

AICS

All components listed

DSL

All components listed

IECSC

All components listed

EINECS

All components listed or polymer exempt

KECI (KR)

All components listed

PICCS (PH)

All components listed

16. Other Information

Date Issued

04.06.2008

Reference

ECASA/03

Product Code

Epoxy Products Epoxy Coating AS (Resin - Pack A)

Intended Use

Epoxy Resin floor Coating.

MATERIAL SAFETY DATA SHEET

EPOXY COATING AS - PACK B

1. Identification of the substance/preparation and company.

Product Name : Epoxy Products Epoxy Coating AS - Pack B
 Product Code : EC/B
 Product Type : Epoxy Resin Curing Agent
 Supplier : Epoxy Products Limited
 Address : Unit 7, Ferndown Industrial Estate, Wimborne, Dorset. BH21 7RZ England
 Contact numbers : 01202 891899
 Web Site : www.epoxyproducts.co.uk
 E Mail : sales@epoxyproducts.co.uk
 Emergency Telephone Number : 01202 891899

2. Hazards Identification

Classification : Corrosive
 Harmful
 Dangerous for the environment

Human Health Hazards : Harmful by inhalation, in contact with skin and if swallowed.
 Causes severe burns. May cause sensitization by skin contact

Safety Hazards : Not classified as flammable but will burn.

Environmental Hazards : Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment.

3. Composition/Information on Ingredients

Chemical Nature : Mixture of cycloaliphatic amines and benzyl alcohol

Preparation - Hazardous Ingredients (Europe)

Component	CAS/EINECS	Concentration %	Classification	Risk Phrases
Benzyl Alcohol	100-51-6 202-859-9	35 - 40	Xn	R20/22
Isophoronediamine	2855-13-2 220-666-8	25 - 30	C	R21/22, R34, R43, R52/53
Cycloaliphatic Amine (Modified)	212580-83-1	25 - 30	C, N	R21/22, R34, R43, R51/53
M-Xylylenediamine	1477-55-0 216-032-5	7- 10	C	R20/22, R35, R43, R52/53

4. first-aid Measures

Eye Contact : **Do not delay** Flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to ensure water contact with entire surface of eyes and lids. Seek immediate medical attention.

Skin Contact : **Do not delay.** Wash skin thoroughly with soap and water.

Ingestion : **Do not delay** Wash out mouth with water. Give nothing by mouth. Do not induce vomiting. Seek immediate medical attention.

Inhalation : Remove to fresh air. If rapid recovery does not occur, obtain medical attention.

5. Fire-fighting Measures

Extinguishing Media : Use foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Extinguishing Media – Not suitable : Do not use water jet.

Special Hazards of Product : Combustion products may include oxides of nitrogen, carbon monoxide. Keep adjacent containers cool by spraying with water.

Protective Equipment for Fire-Fighting : Wear full protective clothing and self-contained breathing apparatus.

6. Accidental Release Measures

Personal Precautions : Avoid contact with skin, eyes and clothing
 Do not breathe fumes, mists, aerosols, spray.
 Take off immediately all contaminated clothing.
 Evacuate the area of all non essential personnel.
 Shut off leaks, if possible without personal risk.

Environmental Precautions : Prevent contamination of soil and water.
 Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.

Clean Up Methods –Small Spillage : Absorb or contain liquid with sand, earth or spill control material. Shovel up and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum. Scrub contaminated surfaces with water. Retain washings as contaminated waste.

Clean Up Methods –Large Spillage : Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage.

7. Handling and Storage

Handling : Avoid contact with skin, eyes and clothing. Avoid breathing vapours.

Storage : Keep containers tightly closed and in a cool, well ventilated place. Keep away from direct sunlight and other sources of heat or ignition.

8. Exposure Controls/Personal Protection

Engineering Control Measures : Use of the basic principles of Industrial Hygiene will enable this material to be used safely.

Respiratory Protection : Not normally required. In confined areas an air supplied respirator should always be used.

Hand Protection : Butyl or nitrile type gloves or any impermeable gloves must be worn.

Eye Protection The inside of the gloves must be kept clean
Safety eye glasses must be worn.

9. Physical and Chemical Properties

Appearance	Liquid
Odour	Aminic
pH	12
Flash Point	102°C ASTM D-93 / PMCC)
Density	1.010 kg/m ³ at 25°C
Water Solubility	Slightly
Partition Coefficient (n-Octanol/Water)	Not available
Viscosity	450 mPa-s at 25°C

10. Stability and Reactivity

Conditions to avoid	Exposure to water vapour.
Materials to avoid	Strong oxidising agents. Strong acids.
Hazardous Decomposition Products	Not expected to form during normal storage.
Hazardous Reactions	Stable. Hygroscopic

11. Toxicological Information

Acute Oral Toxicity	Expected to be moderately toxic, 200 < LD50 <= 2000mg/kg
Acute Inhalation Toxicity	Expected to be moderately toxic, 1 < LD50 <= 5mg/l
Acute dermal toxicity	Expected to be moderately toxic, 400 < LD50 <= 2000mg/kg
Eye Irritation	Corrosive
Skin Irritation	Expected to be severe irritant.
Sensitisation	Expected to be a skin sensitiser
Human Effects	See section 4 for information regarding acute effects to humans.
Basis for Assessment	Information given is based on data on the components and toxicology of similar products.

12. Ecological Information

Elimination information (persistence and degradability)

Biodegradability The solvent is readily biodegradable, but the product contains components that are persistent in the environment.

Bioaccumulation Not expected to bioaccumulate significantly

Ecotoxicity Effects

Toxicity to fish	Expected to be slightly toxic, 10 < LC/EC/IC 50 <= 100mg/l
Toxicity to algae	Expected to be slightly toxic, 10 < LC/EC/IC 50 <= 100mg/l
Acute toxicity to invertebrates	Expected to be slightly toxic, 10 < LC/EC/IC 50 <= 100mg/l
Mobility	Sinks in fresh water, but will float on seawater. Partly dissolves, but a significant proportion will remain after one day. If product enters soil, one or more constituents will be mobile and may contaminate groundwater.

Sewage Treatment
Basis for Assessment

Expected to be practically non toxic, LC/EC/IC 50 > 100mg/l
Ecotoxicological data have not been determined specifically for this product. The information given is based on data on the components and toxicology of similar products.

13. Disposal

Product Disposal	Recover or recycle if possible. Otherwise incineration with wet scrubbing facilities. Dispose to licensed disposal contractor
Container Disposal	Keep container labelled until cleaned and then remove or deface labels. Drain container thoroughly and rinse well with water. Treat rinsings as for product disposal. Empty packaging should be removed by a licensed waste contractor.

14. Transport Information

ADR / RID

UN Number	2735
Class	8
Classification Code	C7
Packaging Group	11
Labelling Number	8
Risk Number	80
Description of the goods contains	POLYAMINES, LIQUID, CORROSIVE, N.O.S. ISOPHORONE DIAMINE, M-XYLYLENEDIAMINE

ICAO / IATA-DGR

UN Number	2735
Class	8
Packaging Group	11
Labelling Number	8
Description of the goods contains	POLYAMINES, LIQUID, CORROSIVE, N.O.S. ISOPHORONE DIAMINE, M-XYLYLENEDIAMINE

IMDG

UN Number	2735
Class	8
Packaging Group	11
Description of the goods contains	POLYAMINES, LIQUID, CORROSIVE, N.O.S. ISOPHORONE DIAMINE, M-XYLYLENEDIAMINE

15. Regulatory Information

Label requirements to EC Directives Contains m-xylene diamine and isophorone diamine

Classification	Corrosive Harmful Dangerous for the environment
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Symbol



C - CORROSIVE

Risk Phrases - R	R20/21/22 R35 R43 R52/53	Harmful by inhalation, in contact with skin and if swallowed. Causes severe burns May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment.
Safety Phrases - S	S26 S28A S36/37/39 S45 S61	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing, gloves and eye/face protection. If case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheet.

16. Other Information

Date Issued	01.04.2008
Reference	ECASB/03
Product Code	Epoxy Products Epoxy Coating AS (Hardener - Pack B)
Intended Use	Epoxy resin floor coating.

The information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.