

MATERIAL SAFETY DATA SHEET

LIQUID SURFACE MEMBRANE - PACK A

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

- 1.1 Product identifier : Epoxy Products Liquid Surface Membrane - Pack A
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : Epoxy resin coating
- 1.3 Details of the supplier of the safety data sheet : Epoxy Products Limited, Unit 7 Haviland Road, Ferndown Industrial Estate,
Wimborne, Dorset. BH21 7RZ England
Tel No. +44 (0) 1202 891899
- Email Address – Technical Information : sales@epoxyproducts.co.uk
- Telephone : +44 (0) 1202 891899
- 1.4 Emergency telephone number : +44 (0) 1202 891899

SECTION 2. Hazards Identification

- 2.1 Classification of the substance or mixture
Classification according to Regulation 1272/2008 (CLP)
Skin corrosion/irritant - Category 2 H315 : Causes skin irritation.
Eye damage/irritant – Category 2 H319 : Causes serious eye irritation
Skin sensitisation - Category 1 H317 : May cause an allergic skin reaction.
Aquatic Chronic - Category 2 H411 : Toxic to aquatic life with long lasting effects.

2.2 Label Elements

Hazard pictograms/symbols



Signal Word: Warning

Hazard Statements:

H319: Causes serious eye irritation.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H411: Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- Prevention : Wear protective gloves
Wear eye or face protection
Avoid release to the environment
- Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Disposal : Disposal of contents/container to be specified in accordance with national regulations.

2.3 Other Hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annexe X111

Not Applicable

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annexe X111

Not Applicable

SECTION 3. Composition/Information on Ingredients

Substance/Mixture	: Mixture				
Component	EINECS	CAS Number	Concentration %	Classification (CLP)	REACH REG
Epoxy Resin Bisphenol Type A (Mol.Wt.<700)	500-033-5	25068-38-6	<40	Skin Corr/Irrit. 2; H315 Eye Dam/Irrit. 2 ; H319 Skin Sens. 1 ; H317 Aquatic Chronic 2, H411	01-2119456619-26
Formaldehyde, polymer with (chloromethyl) oxirane and Phenol, MW<700	500-006-8	9003-36-5	<20	Skin Corr/Irrit. 2; H315 Skin Sens. 1 ; H317 Aquatic Chronic 2, H411	01-2119454392-40
Oxirane, mono{(C12-C14-alkyloxy) methyl} derivs.	271-846-8	68609-97-2	<10	Skin Corr/Irrit. 2; H315 Skin Sens. 1 ; H317	01-2119485289

4. First-aid measures

4.1 Description of first aid measures

- Eye Contact : Rinse immediately with plenty of water also under the eyelids for at least 10 minutes. Remove contact lenses. Get medical attention.
- Skin Contact : Wash off immediately with plenty of water for at least 10 minutes. Wash off with soap and water. Immediately remove contaminated clothing and any extraneous chemical without delay.
- Ingestion : Wash out mouth with water. If victim has swallowed material and is still conscious give small amounts of water to drink. Stop if person feels sick. Do not induce vomiting unless directed to do so by medical personnel.. Seek immediate medical attention.

- 4.2 Most important symptoms and effects, both acute and delayed.
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|--------------------------------|--|
| Potential acute health effects | |
| Eye contact | Causes serious eye irritation |
| Inhalation | No known significant effects or critical hazards |
| Skin contact | Causes skin irritation. May cause an allergic skin reaction |
| Ingestion | Irritating to mouth, throat and stomach. |
| Over exposure signs/symptoms | |
| Eye contact | Adverse symptoms may include the following:
Pain or irritation
Watering
Redness |
| Inhalation | No known significant effects or critical hazards |
| Skin contact | Adverse symptoms may include the following:
Irritation
Redness |
| Ingestion | No specific data |
- 4.3 Indication of any immediate medical attention and special treatment needed
No specific treatment

SECTION 5. Fire-fighting measures

- 5.1 Extinguishing media
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| Suitable extinguishing media | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | None known |
- 5.2 Special hazards arising from the substance
Hazards from the substance or mixture Incomplete combustion may form carbon dioxide ,carbon monoxide and halogenated compounds.
- 5.3 Advice for fire-fighters
Special protective actions for fire fighters Promptly isolate the scene by removing all persons from the vicinity of the fire.
Special protective equipment for fire fighters Fire fighters should wear appropriate protective equipment.

SECTION 6. Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Wear suitable protective clothing, gloves and eye/face protection. Use self contained breathing apparatus and chemically protective clothing.
- 6.2 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.
- 6.3 Methods and material for containment and cleaning up
Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage

SECTION 7. Handling and storage

- 7.1 Precautions for safe handling
Protective measures
Wear appropriate personal protective equipment. Avoid contact with eyes, skin or clothing. Do not ingest. Keep containers closed when not in use.
Advice on general occupational hygiene Do not eat, drink or smoke when handling this product. Wash hands after handling.
- 7.2 Conditions for safe storage, including any incompatibilities
Keep containers tightly closed in a dry, cool and well ventilated areas
Do not store in unlabelled containers.

SECTION 8. Exposure controls/personal protection

- 8.1 Control parameters
Occupational exposure limits No exposure limit value known
- 8.2 Exposure controls
Provide readily accessible eye wash stations and safety showers. Provide natural or explosion proof ventilation adequate to ensure concentrations are kept below explosion limits.
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|---------------------------------|---|
| Personal protective equipment | |
| Hand protection | Chemically resistant, impervious gloves should be worn at all times when handling.
Butyl rubber, Nitrile rubber, neoprene gloves, impervious gloves, latex or vinyl disposable gloves. |
| Eye/face protection | Protective eye glasses or goggles must be worn. |
| Skin and body protection | Standard issue work clothes. Long sleeve shirts, trousers or overalls must be worn. |
| Environmental exposure controls | Construct a dike to prevent spreading. |

SECTION 9. Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
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|-----------------------|-----------------------------------|
| Physical state/colour | Viscous liquid in various colours |
| Odour | Not available |
| Relative density | Not available |
| Flash Point | 150°C |
| Viscosity | Not available |
| Ph | Not available |

SECTION 10. Stability and reactivity

- 10.1 Reactivity Stable under normal conditions
- 10.2 Chemical stability This product is stable

10.3	Possibility of hazardous reactions	No specific data
10.4	Conditions to avoid	No specific data
10.5	Incompatible materials	No specific data
10.6	Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11. Toxicological information

11.1	Information on toxicological effects	
	Acute Toxicity	
	No data available on the product itself.	
	Components - Oral	
	Epoxy Resin Bisphenol Type A	No acutely toxic in rat and mouse studies, LD50>2000mg/kg
	Formaldehyde, polymer with (chloromethyl) oxirane and phenol, Oxirane, mono{(C12-C14-alkyloxy) methyl} derivs.	No acutely toxic in rat and mouse studies, LD50>2000mg/kg LD50 >2.0grams (Female Rat) and LD50 = 26.8 grams (Male Rat)
	Components - Inhalation	
	Epoxy Resin Bisphenol Type A	Due to the low vapour pressure, meaning ful acute inhalation studies could not be conducted.
	Formaldehyde, polymer with (chloromethyl) oxirane and phenol, Oxirane, mono{(C12-C14-alkyloxy) methyl} derivs.	No specific data No mortalities were observed in rats exposed for 7 hours to the saturated vapour (150mg/m ³)
	Components – Dermal	
	Epoxy Resin Bisphenol Type A	No acutely toxic in rat and mouse studies, LD50>2000mg/kg
	Formaldehyde, polymer with (chloromethyl) oxirane and phenol, Oxirane, mono{(C12-C14-alkyloxy) methyl} derivs.	No specific data No specific data
	Potential acute health effects	
	Eye contact	Causes serious eye irritation.
	Inhalation	Irritating to mouth, throat and stomach.
	Ingestion	No known significant effects or critical hazards
	Over exposure signs/symptoms	
	Eye contact	Adverse symptoms may include the following: Pain or irritation Watery Redness
	Inhalation	No known significant effects or critical hazards
	Skin contact	Adverse symptoms may include the following: Irritation Redness
	Ingestion	No specific data
	Chronic toxicity or effects from long term exposures	
	Carcinogenicity	No known significant effects or critical hazards
	Reproductive toxicity	No known significant effects or critical hazards
	Germ cell mutagenicity	No specific data is available.

SECTION 12. Ecological information

12.1	Toxicity	
	Aquatic toxicity	No data is available on the products itself
	Epoxy Resin Bisphenol Type A	Acute LC50 1.30 mg/l Fish
	Formaldehyde, polymer with (chloromethyl) oxirane and phenol, Oxirane, mono{(C12-C14-alkyloxy) methyl} derivs.	Acute LC50 2.54 mg/l Fish Acute LC50 1.80 mg/l Fish – Rainbow Trout Acute EC50 844 mg/l Aquatic Plants - Algae
12.2	Persistence and degradability	No data available
12.3	Bioaccumulative potential	No data available
12.4	Mobility in soil	No data is available

SECTION 13. Disposal considerations

13.1	Waste treatment methods	
	Product	Waste to be treated as controlled waste. Dispose to licensed waste disposal site. In accordance with local waste disposal authority.
	Packaging	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.

SECTION 14 Transport information

14.1	UN Number
14.2	UN Proper shipping name
14.3	Transport Hazard Class
14.4	Packaging Group

Land Transport ADR / ADN

UN Number	3082
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (LIQUID EPOXY RESIN, ALIPHATIC GLYCIDYL ETHER)
Transport Hazard Class	9
Packaging Group	111

Air Transport ICAO / IATA

UN Number	3082
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (LIQUID EPOXY RESIN, ALIPHATIC GLYCIDYL ETHER)
Transport Shipping Class	9
Packaging Group	111

Maritime Transport IMO / IMDG

UN Number	3082
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (LIQUID EPOXY RESIN, ALIPHATIC GLYCIDYL ETHER)
Transport Shipping Class	9
Packaging Group	111

14.5 Environmental hazards
 Environmentally hazardous and/or marine pollutant : YES

SECTION 15. Regulatory information

15.1 Safety, health and environment regulations/legislation specific for the substance or mixture
 EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV – List of substances to authorisation.
 Substances of very high concern

Carcinogen	:	Not listed
Mutagen	:	Not listed
Toxic to reproduction	:	Not listed
PBT	:	Not listed
VPvB	:	Not listed

SECTION 16. Other Information

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

Full Text of Classifications (CLP)

Skin Corrosion/Irritation Category 2, H315	Skin Corrosion/irritation – Category 2
Skin Sensitisation Category 1, H317	Skin Sensitisation - Category 1
Eye Damage/Irritation Category 2, H319	Serious Eye Damage/Eye Irritation – Category 2
Aquatic Chronic Category 2, H411	Aquatic Hazard (Long lasting) – Category 2

Date Issued	:	22.06.05
Reference	:	LSM/A/07
Product Code	:	Epoxy Products Liquid Surface Membrane (Resin- Pack A)
Intended Use	:	Epoxy resin 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.

MATERIAL SAFETY DATA SHEET

LIQUID SURFACE MEMBRANE - PACK B

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

- 1.1 Product identifier : Epoxy Products Liquid Surface Membrane - Pack B
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : Epoxy Curing Agent
- 1.3 Details of the supplier of the safety data sheet : Epoxy Products Limited, Unit 7 Haviland Road, Ferndown Industrial Estate, Wimborne, Dorset. BH21 7RZ England
Tel No. +44 (0) 1202 891899
- Email Address – Technical Information : sales@epoxyproducts.co.uk
- Telephone : +44 (0) 1202 891899
- 1.4 Emergency telephone number : +44 (0) 1202 891899

SECTION 2: Hazards Identification

- 2.1 Classification according to Regulation 1272/2008
Repr. Category 2 H361f : Suspected of damaging fertility.
Skin corrosion Category 1B: H314 : Causes severe skin burns and eye damage
Eye damage Category 1: H318 : Causes serious eye damage.
Skin Sens. Category 1: H317 May cause an allergic skin reaction

- 2.2 Label Elements
Hazard pictograms/symbols



Signal Word: Danger

Hazard Statements:
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction.
H361f: Suspect of damaging fertility

Precautionary Statements:

- Prevention : P260: Do not breathe dust/fume/gas/mist/vapours/spray
- Response : 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.
P310: Immediately call a POISON CENTRE/doctor.
- Disposal : P405: Store locked up.
P501: Disposal of contents/container to be specified in accordance with national regulations.

- 2.3 Other Hazards
Results of PBT and vPvB assessment Both not applicable

SECTION 3. Composition/Information on Ingredients

Substance/Mixture	: Mixture				
Component	EINECS	CAS Number	Concentration %	Classification (CLP)	REACH REG
Benzyl Alcohol	202-859-9	100-51-6	25 -50	Acute Tox. Inha 4 ; H332 Acute Tox. Oral 4 ; H302 Eye Irrit. 2 : H319	01-2119492630-38-xxxx
3-aminomethyl-3,5,5- trimethyl cyclohexylamine	220-666-8	2855-13-2	<10	Skin Corr. 1B : H314 Acute Tox. Oral 4 ; H302 Acute Tox. Inhal 4; H312 Skins Sens. 1 : H317 Aquatic Chronic 3 : H412	01-2119514687-32-xxxx
M-phenylenebis(methylamine)	216-032-5	1477-55-0	<10	Skin Corr. 1B : H314 Acute Tox. Oral 4 ; H302 Acute Tox. Inhal 4; H332 Skins Sens. 1 : H317 Aquatic Chronic 3 : H412	01-2119480150-50-xxxx

SECTION 4: First-aid measures

- 4.1 Description of first aid measures
- Eye Contact : Rinse immediately with plenty of water also under the eyelids for at least 20 minutes. Remove contact lenses.
- Skin Contact : Wash off immediately with plenty of water for at least 20 minutes. Wash off with soap and water. Immediately remove contaminated clothing and any extraneous chemical without delay.

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| Ingestion | Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victims head to one side. Call doctor immediately. |
| Inhalation | Remove to fresh air. If rapid recovery does not occur, obtain medical attention. |
- 4.2 Most important symptoms and effects, both acute and delayed.
Symptoms No data available
- 4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. Fire-fighting measures

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|--|--|
| 5.1 Extinguishing media | Alcohol resistant foam, carbon dioxide, dry chemical, dry sand or limestone powder |
| Extinguishing media – Not suitable | No data available |
| 5.2 Special hazards arising from the substance | Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated |
| 5.3 Advice for fire-fighters | Avoid contact with skin. Use personal protective equipment. Wear self-contained breathing apparatus for fire fighting if necessary. |

SECTION 6. Accidental release measures

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| 6.1 Personal precautions, protective equipment | Wear suitable protective clothing, gloves and eye/face protection. Use self contained breathing |
| 6.2 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. |
| 6.3 Methods and material for containment and cleaning up | Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage |

SECTION 7. Handling and storage

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| 7.1 Precautions for safe handling | Do not use sodium nitrate or other nitrosating agents in formulations containing this product. Suspected cancer causing nitrosamines could be formed. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke. |
| 7.2 Conditions for safe storage, including any incompatibilities | Do not store near acids. Keep away from alkalis. Keep containers tightly closed in a dry, cool and well ventilated place. |

SECTION 8. Exposure controls/personal protection

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|---|---|
| 8.1 Control parameters | If applicable, refer to the extended section of the MSDS (available upon request) |
| 8.2 Exposure controls | Provide readily accessible eye wash stations and safety showers. Provide natural or explosion proof ventilation adequate to ensure concentrations are kept below explosion limits. |
| 8.3 Personal protective equipment | |
| Hand protection | Chemically resistant, impervious gloves should be worn at all times when handling.
Butyl rubber, Nitrile rubber, neoprene gloves, impervious gloves, latex or vinyl disposable gloves. |
| Eye/face protection | Protective eye glasses or goggles must be worn. |
| Skin and body protection | Standard issue work clothes. Long sleeve shirts, trousers or overalls must be worn. |
| Environmental exposure controls | Construct a dike to prevent spreading. |
| Special instructions for protection and | Discard contaminated clothing. Provide accessible eye wash stations and safety showers. Wash hands at the end of each workshift and before eating, drinking, smoking or using the toilet. |

SECTION 9. Physical and chemical properties

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|---|------------------------------|
| 9.1 Information on basic physical and chemical properties | |
| Physical state/colour | Liquid. Amber |
| Odour | Amine like |
| Relative density | 1.03 g/m ³ |
| Self inflammability | Product is not self-igniting |
| Danger of explosion | Product is not explosive |
| Viscosity | No data is available |

SECTION 10. Stability and reactivity

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| 10.1 Reactivity | Refer to possibility of hazardous reactions and/or incompatible materials section |
| 10.2 Chemical stability | Stable under normal conditions |
| 10.3 Possibility of hazardous reactions | No dangerous reactions known |
| 10.4 Conditions to avoid | No data available |
| 10.5 Incompatible materials | Amines
Incompatible with bases
Reducing agents
Reactive materials, eg sodium calcium, zinc etc.
Materials with hydroxyl compounds
Oxidising agents. |
| 10.6 Hazardous decomposition products | In the event of fire: Poisonous gases/vapours and/or corrosive gases/vapours |

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Likely routes of exposure	
Effects on Eye	Causes eye burns
Effects on Skin	Causes skin burns
Ingestion Effects	Swallowing will lead to a caustic effect on the moth, throat and stomach
Acute Inhalation Toxicity	No data available on the product itself.
Acute Oral Toxicity	No data available on the product itself.
Acute Oral Toxicity - Components	
Benzyl Alcohol	LD50 : 1040mg/kg Species : Mouse and Rabbit LD50 : 1620mg/kg Species : Rat
Acute Dermal Toxicity	No data available on the product itself.
Acute Dermal Toxicity – Components	
Benzyl Alcohol	LD50: 2,000 mg/kg Species: Rabbit
Sensitisation	May cause sensitisation of susceptible persons by skin contact.
Chronic toxicity or effects from long term exposures	
Carcinogenicity	No data is available
Reproductive toxicity	No data is available on the product itself
Germ cell mutagenicity	No data is available on the product itself.
Specific target organ systemic toxicity (single exposure)	No data is available on the products itself
Specific target organ systemic toxicity (repeated exposure)	This product contains no listed carcinogens according to Directive 67/548/EEC, IARC, ACGIH and/or NTP in concentrations of 0.12 percent or greater..
Aspiration hazard	No data available

SECTION 12. Ecological information

12.1 Toxicity

Aquatic toxicity	No data is available on the products itself
Toxicity to fish – Components	
Benzyl Alcohol	LC50 (96 h) : 460mg/l Species: Pimephales promelas
Toxicity to daphnia - Components	
Benzyl Alcohol	EC50 (24 h) : 400mg/l Species: Daphnia magna
Toxicity to algae – Components	
Benzyl Alcohol	EC50 (96 h) : 640 mg/l Species: Algae

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available on the product itself

Bioaccumulative – Components

Benzyl Alcohol

Low bioaccumulation potential

12.4 Mobility in soil

No data is available

SECTION 13. Disposal considerations

Waste treatment methods

Waste to be treated as controlled waste. Dispose to licensed waste disposal site. In accordance with local waste disposal authority.

Contaminated Packaging

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.

SECTION 14 Transport information

14.5 UN Number

14.6 UN Proper shipping name

14.7 Transport Hazard Class

14.8 Packaging Group

Land Transport ADR

UN Number	2735
UN Proper Shipping Name	2735 AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))
Transport Hazard Class	8
Packaging Group	111

Air Transport ICAO / IATA

UN Number	2735
UN Proper Shipping Name	2735 AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))
Transport Shipping Class	8
Packaging Group	111

Maritime Transport IMO / IMDG

UN Number	2735
UN Proper Shipping Name	2735 AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))
Transport Shipping Class	8
Packaging Group	111

SECTION 15. Regulatory information

15.1 Safety, health and environment regulations/legislation specific for the substance or mixture
Country : EU
Regulatory List : EINECS
Notofication : Included on EINECS inventory

SECTION 16. Other Information

Hazard Statements

H302: Harmful if swallowed
HH314: Causes sever skin burns and eye damage
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation
H332: Harmful if inhaled
H361f: Suspect of damaging fertility
H412: Harmful to aquatic life with long lasting effects.

Date Issued : 22.06.2015
Reference : LSM/B/07
Product Code : Epoxy Products Liquid Surface Membrane (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.