

MATERIAL SAFETY DATA SHEET

The Robex Group
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SECTION 1. IDENTIFICATION OF SUBSTANCE/ PREPARATION AND COMPANY

DURA QUARTZ BASE

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SECTION 2. Chemical Characterisation: Ingredients	COMPOSITION/INFORMATION ON INGREDIENTS			
	Formulated Epoxy Resin. CAS No.	Hazard Symbols	R-Phrases	Concentration
Bisphenol (Reaction Product) A- (epichlorhydrin) Epoxy Resin (number ave. mol. wt. <700) C12-C14 aliphatic glycidyl ether	25068-38-6	Xi	R36/38-R43	50-57%
	68609-97-2	Xi	R36/38-R43	5-15%

SECTION 3. HAZARDS IDENTIFICATION

Irritating to eyes and skin.
May cause sensitisation by skin contact.

SECTION 4. FIRST AID MEASURES

Immediate treatment

Eye contact: Immediately flush eyes with running water for at least 15 minutes without interruption. Then visit a doctor.
Skin contact: Remove contaminated clothing immediately. Rinse affected skin with copious amounts of water, using a mild cleansing agent. If irritation persists then seek medical attention.
Inhalation: Remove injured person to fresh air. Seek medical attention.
Ingestion: Do not induce vomiting. Drink water in small sips (diluting effect). Seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Special hazards: Harmful gases and vapours (as well as Carbon Dioxide and Carbon Monoxide) may be formed.
Protective equipment: Wear self contained breathing apparatus.
Extinguishing media: Water, dry powder (BC powder) foam, Carbon Dioxide.
Extinguishing agents prohibited: Water jet.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal protection: Avoid skin and eye contact. Provide for sufficient room ventilation.
Environmental precautions: Prevent from entering the sewer system, surface water or soil.
Methods for cleaning: Larger amounts: Dike spilled product with a liquid absorbing material and pump off.
Smaller amounts: Soak up with liquid absorbing material and dispose of as instructed. (See Section 13).

SECTION 7. HANDLING AND STORAGE

Safe handling advice: Use only in well ventilated areas.
Keep container tightly closed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection: Not normally required. Combination filter A/P2 when spraying.
Eye protection: Safety goggles.
Hand protection: Protective gloves, gauntlet type gloves of PVC or rubber.
Skin protection: Plastic or rubber apron. Suitable arm protection if body contact is possible.
Hygienic measures: Apply skin protection cream before handling. Immediately take off all contaminated clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid, paste or grout.
Colour: Colourless or coloured.
Odour: Weak odour.
Safety relevant data. **NB Data applicable to Resin.**
Boiling temperature: > 200°C at: 1013 hPa
Thermal decomposition: > 200°C
Flash point: ca. 130°C. Method: DIN S1758
Vapour pressure: <0.1 hPa, at: 20°C.
Density: 1.13 g/cm³, at:20°C. Method: DIN 515757.
Solubility: Insoluble in/with water, at 20°C.
Viscosity: 800 - 1100 mPa * s, at 25°C.

SECTION 10. STABILITY AND REACTIVITY

Materials to avoid: May react under considerable heat build up with amines and mercaptanes. Also avoid acids.
Hazardous decomposition products: None.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity (lethal doses):

DD50 oral, rat:
Dose : 10ml/kg

General information about acute or other toxicities: Skin/Eye irritation.
In animal testing low molecular weight epoxy resins and glycidil ethers have been shown to cause irritation.
Sensitisation.
In animal testing low molecular weight epoxy resins and glycidil ethers have been shown to cause sensitization.

Experience with Human Beings: Low molecular weight epoxy resins have been shown to cause irritation on skin and eyes.
Skin sensitisation was also observed.

SECTION 12. ECOLOGICAL INFORMATION

Additional information about ecology:
No results from ecotoxicological test are available.

SECTION 13. DISPOSAL CONSIDERATIONS

Packaging: Can be used again after cleaning. Dispose of washing solution in same way as product.
Product: Burn in compliance with operative regulations in a hazardous waste incinerator.

SECTION 14. TRANSPORT INFORMATION

Not a dangerous good within the meaning of national and international transport regulations.

SECTION 15. REGULATORY INFORMATION

Classification according to EEC Directives.

Classification: Labelling according to EC - Directive 88/379/EEC, and amendments and adaptations.
Hazard Labels: Xi Irritant.
R-Phrases: R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
S-Phrases: S26 In case of contact with eyes, wash immediately with plenty of soap and water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of soap and water.
S37/39 Wear suitable gloves and eye/face protection.

Hazardous ingredient: Reaction product: bisphenol A- (epichlorhydrin); Epoxy resin (number average molecular weight <= 700)
C12-14 alipatic glycidil ether.

SECTION 16. OTHER INFORMATION

The information contained in this data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging) Regulations. It does not constitute the user's own assessment of workplace risks are required by other health and safety legislation. The provisions of the Health and Safety at Work etc. Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of the relevant legislation are complied with.

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with legal regulations. The information contained herein is based on the current state of our knowledge and is intended to describe products from the point of view of safety requirements and thus should not be construed as guaranteeing specific properties.

Date of Preparation: 01.02.2003



MATERIAL SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF SUBSTANCE/ PREPARATION AND COMPANY

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SECTION 2.	COMPOSITION/INFORMATION ON INGREDIENTS			
Chemical characterization:	Modified Aliphatic amine.			
Ingredients	CAS No.	Hazard Symbols	R-Phrases	Concentration
Benzyl Alcohol	100-51-6		R20/22	<50%
Isophoronediamine	2855-13-2		R34/21/22/43	< 50%

SECTION 3. HAZARDS IDENTIFICATION
Caution: Contains Polymeric Polyamine and Benzyl Alcohol.

SECTION 4. FIRST AID MEASURES
Immediate Treatment:
Eye contact: Rinse immediately with plenty of water, continuing for 15 minutes and seek medical attention.
Skin contact: Wash immediately with plenty of water and soap. Remove contaminated clothing. In case of persistent irritation or if rash develops, seek medical attention.
Inhalation: Remove the affected person to fresh air, and allow to rest. In case of breathing difficulty or distress, seek medical attention.
Ingestion: Immediately rinse mouth with water and seek medical attention if this is not immediately available, drink one or two pints of water.

SECTION 5. FIRE FIGHTING MEASURES
Special hazards: Cool containers in the vicinity of the blaze with waterspray. May generate toxic, irritating or flammable products. Sudden reaction and fire may result if mixed with an oxidising agent.
Protective equipment: Wear self contained breathing apparatus, butyl boots and a body suit.
Extinguishing agents: Use foam, dry chemical,, CO2 or waterspray. Retain liquids used for later disposal.
Class B Fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES
Personal protection: Use PPE described above.
Environmental precautions: Wash the area clean with water and detergents.
Methods for cleaning: Absorb with earth, sand or other absorbent material, sweep up and shovel into Containers for disposal.
Additional information: Extinguish naked lights in the vicinity.

SECTION 7. HANDLING AND STORAGE
Safe handling advice: Wear goggles or a face shield, impervious gloves and protective clothing.
Use in a well ventilated area.
Storage: Store in a cool well ventilated place away from foodstuffs and epoxy resins.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Respiratory protection: In poorly ventilated areas use a cartridge mask approved for organic vapours.
Eye protection: Goggles/face shield.
Hand protection: Impervious gloves.
Skin protection: Slicker suit. Rubber boots.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Physical state: Liquid.
Colour: Clear to yellow.
Odour: Irritating.
Safety Relevant Data.
Boiling temperature: 224°C.
Melting point: < -18°C.
Flash point: 166°C. (closed cup).
Solubility: Low in water. Miscible with hydrocarbon solvents.
Viscosity: 100 (cps) @ 25°C.
Relative density: 1.00 @ 25°C.

SECTION 10. STABILITY AND REACTIVITY
Materials to avoid: Oxidising agents (i.e. perchlorates, nitrates etc.). Cleaning solutions such as chromerge and aqua regia.
Hazardous decomposition products: CO in a fire, CO2 in a fire. Ammonia when heated, Nitrogen Oxides In a fire. Nitrogen Oxide can react with water vapours to form Corrosive nitric acid.
Combustion of product under oxygen starved conditions can be expected to produce numerous toxic products i.e. nitrides/amines.

SECTION 11. TOXICOLOGICAL INFORMATION
General information about acute or other toxicity's: Oral LD50 (rat) : 1373 mg/kg
Dermal LD50 (rabbit) : >2000 mg/kg

SECTION 12.**ECOLOGICAL INFORMATION**

Additional information about ecology: No results from ecotoxicological test are available.

SECTION 13.**DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local and national regulations. For example, in the UK regulations made under the Control of Pollution Act 1974, and the Environmental Protection Act 1990. Wear protective clothing during disposal operations. If disposal is by a waste container, make sure that it has sufficient information and that waste containers are properly labelled.

SECTION 14.**TRANSPORT INFORMATION**

UN No.: 2735
ADR/RID shipping data: Isophoronediamine Mixture 8.53 (c)
IMO shipping data: Alkylamines, liquid, NOS (Isophoronediamine); 8; UN2735; IMDG Pg.: 8103, Pa, iii
ICAO/IATA shipping data: As 'IMO'.

SECTION 15.**REGULATORY INFORMATION**

Classification according to EEC Directives.
Classification: Corrosive, causes burns.
Hazard labels:
R-Phrases: R34/20/21/22/43
S-Phrases: S26/36/37/39

SECTION 16.**OTHER INFORMATION**

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Date of Preparation: 01.02.2003



MATERIAL SAFETY DATA SHEET

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SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterisation: Aromatic Hydrocarbon Mixture

Ingredients:	CAS No.	Hazard Symbols	R-Phrases	EINECS %	Weight
Aromatic Hydro-Carbon Mixture	64742-95-6		R10	2651990	>50

SECTION 3. HAZARDS IDENTIFICATION

FLAMMABLE

Avoid contact with skin and eyes.

Take precautionary measures against static discharge.

SECTION 4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult apply oxygen. Obtain Medical attention.

Skin Contact: Remove contaminated clothing. Wash affected parts with soap and water.

Eye Contact: Irrigate with clean water for several minutes ensuring that the water reaches the corners under both eyelids. If irritation persists seek medical attention.

Ingestion: Do not induce vomiting. Drink Milk or Water, place in the recovery position and obtain medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Special Hazards: FLAMMABLE. CONTAINER MAY BURST IF OVERHEATED.

Protective Equipment: Self contained breathing apparatus must be worn in fire conditions.

Extinguishing Agents: Carbon Dioxide, Alcohol Resistant Foam, Sand or Earth. Water Spray should be used to cool containers, can accumulate static electricity charges.

SECTION 6. ACCIDENTAL RELEASE MEASURE

Ensure that there are no sources of ignition. If necessary evacuate personnel from area.

Avoid breathing vapour. Contain and absorb with sand or proprietary material, sweep up and dispose of as flammable waste.

SECTION 7. STORAGE AND HANDLING

Store in closed, labeled containers away from sources of ignition in a well ventilated area. Exclude other flammable and oxidizing agents. Ensure storage vessels and transfer equipment are earth bonded to avoid static charge.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Wear respirator with organic filter fitted if there is a risk of high vapour concentration.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Temperature:	165 Degrees C (initial)
Flash Point:	40 Degrees C
Vapour Pressure:	2.9 at 20 Degrees C
Vapour Density:	4.0 (water = 1.0)
Solubility:	NIL
S.G.:	0.875 @ 20 Degrees C
Auto Flammability:	Lower = 0.7% Upper = 8.0 %

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable

Materials to avoid: Oxidising agents, nitric and sulphuric acids

Conditions to avoid: Avoid naked flames, red hot surfaces and other high temperature sources that may induce thermal decomposition

Hazardous Decomposition Products: Burning will produce Carbon Monoxide and/or Carbon Monoxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Eye Contact: Liquid and high concentrates of vapour produce transient conjunctival irritation. No evidences of damage to eyes.

Skin Contact: Prolonged exposure will defeat skin and may cause dermatitis.

Inhalation: Concentrations at or above the OEL will cause damage to the respiratory tract. High concentrations can cause Central Nervous System depression.

Ingestion: Large doses can cause Central Nervous System depression leading to drowsiness, dizziness or unconsciousness. Aspiration whilst vomiting or swallowing will injure the lungs.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution: Product is likely to bioaccumulate but with short retention of around one week. Product will have high soil mobility.

Toxicity: Aquatic toxicity is moderate (TLM 96 1-10 mg/litre)

Biodegradability: BOD 5=190mg/litre of saturated aqueous solution

COD = 440 mg/litre of saturated aqueous solution

SECTION 13. DISPOSAL CONSIDERATIONS

Do not pour into drains or dispose of indiscriminately. Wherever possible recover solvent otherwise use a registered waste disposal contractor.

SECTION 14. TRANSPORT INFORMATION

Packing Group: III

Tremcard: 30G35

Emergency Action Code: 3Y

Classification: Flammable Liquid

S-Phrases: 24/25

R-Phrases: R10

OTHER INFORMATION

This information relates only to the product described. Such information is to the best of Robex Industrial Products knowledge and belief accurate and reliable as the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

Date of Preparation: 01.02.2003

