

Material Safety Data Sheet acc. to ISO 11014-1:1994(E)

Printing date 09/17/2007

Reviewed on 06/28/2007

1 Identification of substance:

- Product details:
- Trade name: EPIKURE[™] Curing Agent MGS LH 285
- Article number: 16S-00025/2
- Application of the substance / the preparation

Laminating resin systems
Hardening agent/ Curing agent

• Manufacturer/Supplier:

Hexion Specialty Chemicals B.V. Postbus 606

3190 AN Hoogvliet Rt.

Netherlands

Tel.: +31 65 25 11 07 9

• Information department:

see: chapter 16 (contact)

E-Mail: eckhard.ruehle@hexion.com

• Emergency information:

CALL CHEMTREC®:

NATIONAL : 800-424-9300 INTERNATIONAL: 703-527-3887

2 Composition/Data on components:

- · Chemical characterization
- Description: Hardener for epoxy resins

• Dangerous components:					
2855-13-2	Isophoronediamine	> 50%			
100-51-6	Benzenemethanol	< 20%			
25154-52-3	nonylphenol	< 2%			

3 Hazards identification

· Information pertaining to particular dangers for man and environment

Harmful in contact with skin and if swallowed.

Causes burns.

May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· Classification system

• NFPA ratings (scale 0 - 4)

Health: 3 Fire: 1 Reactivity: 0

• HMIS ratings (scale 0 - 4)

Health: *3
Fire: 1
Reactivity: 0

4 First aid measures

• General information

Take affected persons out of danger area and lay down. Immediately remove any clothing soiled by the product.

• After inhalation

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

• After skin contact

Immediately wash with water and soap and rinse thoroughly.

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Cover wound with a sterile dressing.

• After eye contact

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

· After swallowing

Rinse out mouth and then drink plenty of water.

Call a doctor immediately.

5 Fire fighting measures

· Suitable extinguishing agents

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- For safety reasons unsuitable extinguishing agents Water with full jet.
- · Special hazards caused by the material, its products of combustion or resulting gases:

In case of fire, the following can be released: Nitrogen oxides (NOx) $\,$

Carbon monoxide (CO)

Ammonia

· Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

• Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

• Measures for cleaning/collecting:

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Dispose contaminated material as waste according to item 13.

7 Handling and storage

- · Handling
- · Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

• Information about protection against explosions and fires:

No special measures required.

- · Requirements to be met by storerooms and receptacles:

Ensure good ventilation/exhaustion at the workplace.

Prevent any seepage into the ground.

- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

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8 Exposure controls and personal protection

· Additional information about design of technical systems:

No further data; see item 7.

· Components with limit values that require monitoring at the workplace:

100-51-6 Benzenemethanol

WEEL 10 ppm

- · Personal protective equipment
- General protective and hygienic measures

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

- Breathing equipment: Not necessary if room is well-ventilated.
- Protection of hands: Plastic gloves
- Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

• 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.

9 Physical and chemical properties:

• General Information

Form: fluid
Color: bluish
Odor: amine-like

· Change in condition

Boiling point/Boiling range: > 200°C (> 392°F)

• Flash point: > 100°C (> 212°F) (ISO 2719)
• Ignition temperature: > 380°C (> 716°F) (DIN 51794)

• Vapor pressure at 20°C (68°F): 0.3 hPa (0 mm Hg)

• Density at 20°C (68°F): 0.94 - 0.97 g/cm3 (DIN 53217)

• Solubility in / Miscibility with

Water: Partly miscible

Viscosity:

dynamic at 25°C (77°F): 50 - 100 mPa*s (ISO 9371)

10 Stability and reactivity

• Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

- \bullet $Dangerous\ reactions$ Strong exothermic reaction with acids
- Dangerous products of decomposition:

Corrosive gases/vapors

Ammonia

USA

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11 Toxicological information

• Acute toxicity:

•	LD/LC50	values	that	are	relevant	for	classification:
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2855-13-2 Isophoronediamine

		1030 mg/kg (rat)	
Dermal	LD50	1840 mg/kg (rabbit))

- Primary irritant effect:
- on the skin: Caustic effect on skin and mucous membranes.
- on the eye: Caustic effect.
- Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information:

• General notes:

Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations

- Product:
- Recommendation

Remove according to local authority recommendations, e.g. convey to a licensed incinerator.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- DOT regulations:
- Hazard class:
- Identification number: UN2735 • Packing group: III
- Proper shipping name (technical name): POLYAMINES, LIQUID, CORROSIVE, N.O.S.

(ISOPHORONEDIAMINE)

Label

• Land transport ADR/RID (cross-border)

• ADR/RID class: 8 Corrosive substances

· Packaging group:

• Description of goods: 2735 POLYAMINES, LIQUID, CORROSIVE,

N.O.S. (ISOPHORONEDIAMINE)

• Maritime transport IMDG:

• IMDG Class: 8

• UN Number: 2735 • Label 8 • Packaging group: TTT • EMS Number: F-A,S-B

• Marine pollutant:

• Propper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.

(ISOPHORONEDIAMINE)

• Air transport ICAO-TI and IATA-DGR:

• ICAO/IATA Class: • UN/ID Number: 2735 • Label 8 III

· Packaging group:

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• Propper shipping name:

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POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE)

15 Regulations

• SARA Section 355 (extremely hazardous substances)

None of the ingredients is listed.

• SARA Section 313 (specific toxic chemical listings)

None of the ingredients is listed.

• TSCA (Toxic Substances Control Act)

All ingredients are listed.

• Prop 65 - Chemicals known to cause cancer

None of the ingredients is listed.

· Cancerogenity categories

• EPA (Environmental Protection Agency)

None of the ingredients is listed.

• IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

• NTP (National Toxicology Program)

None of the ingredients is listed.

• TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

• NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

• OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

- Markings according to EU guidelines:
- · Code letter and hazard designation of product:

Corrosive

• Hazard-determining components of labelling:

Isophoronediamine

· Risk phrases:

Harmful in contact with skin and if swallowed.

Causes burns.

May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: see below
- Contact: Research and Development

**49/711/3898000