> 50% < 20%

- USA

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

Printing date 09/17/2007

HEXION[®]

Specialty Chemicals

Reviewed on 06/18/2007

1 Identification of substance: • Product details: • Trade name: EPIKURE[™] Curing Agent MGS LH 340 • Article number: 16S-00061/1 • 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®: : 800-424-9300 NATIONAL INTERNATIONAL: 703-527-3887

2 Composition/Data on components:

- Chemical characterization
- Description: Hardener for epoxy resins
- Dangerous components:

| | Alkyletheramine |
|-----------|-------------------|
| 2855-13-2 | Isophoronediamine |

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. Cover wound with a sterile dressing. (Contd. on page 2)

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(Contd. of page 1)
Seek medical treatment.
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 to enter sewers/ surface or ground water. Do not allow to penetrate the ground/soil.
Measures for cleaning/collecting: Ensure adequate ventilation. Absorb with liquid-binding material (sand, diatomite, acid binders)

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.
- Storage
- 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. |
| • 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. |
| · Dedre muchashi en · Desta shi sa sash allabiya |

• Body protection: Protective work clothing.

9 Physical and chemical properties:

| • General Information | |
|--|-------------------------------|
| Form: Color: Odor: | fluid bluish amine-like |
| Change in condition Boiling point/Boiling range: | > 240°C (> 464°F) |
| • Flash point: | > 100°C (> 212°F) (ISO 2719) |
| Vapor pressure at 20°C (68°F): | < 0.1 hPa (< 0 mm Hg) |
| Density at 20°C (68°F): | 0.95 - 0.98 g/cm3 (DIN 53217) |
| Solubility in / Miscibility with Water: | miscible |

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
 Dangerous reactions Strong exothermic reaction with acids
- Dangerous reactions strong exothermite reaction with actus
 Dangerous products of decomposition: Corrosive gases/vapors

| P | Ammonia | |
|---|---------|--|
| | | |

11 Toxicological information

• Acute toxicity:

| • LD/LC50 | value | s that are relevant for classification: |
|---|-------|---|
| Alkyletheramine | | |
| Oral | LD50 | 1100 mg/kg (rat) |
| Dermal | LD50 | 983 - 1550 mg/kg (rabbit) |
| 2855-13-2 Isophoronediamine | | |
| Oral | LD50 | 1030 mg/kg (rat) |
| | | 1840 mg/kg (rabbit) |
| • Primary irritant effect: | | |
| • on the skin: Caustic effect on skin and mucous membranes. | | |

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Trade name: EPIKURE[™] Curing Agent MGS LH 340

- 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: 8 • Identification number: UN2735 • Packing group: II • Proper shipping name (technical name): POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkyletheramine) • Label • Land transport ADR/RID (cross-border) • ADR/RID class: 8 Corrosive substances • Packaging group: TΤ • Description of goods: 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkyletheramine) • Maritime transport IMDG: • IMDG Class: 8 • UN Number: 2735 • Label 8 • Packaging group: ΙI • EMS Number: F-A,S-B • Marine pollutant: POLYAMINES, LIQUID, CORROSIVE, N.O.S. • Propper shipping name: (Alkyletheramine) • Air transport ICAO-TI and IATA-DGR: • ICAO/IATA Class: 8 • UN/ID Number: 2735 • Label 8 • Packaging group: ΙI POLYAMINES, LIQUID, CORROSIVE, N.O.S. • Propper shipping name: (Alkyletheramine)

15 Regulations

• SARA Section 355 (extremely hazardous substances) None of the ingredients is listed.

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| | (Contd. of page |
|------------------|--|
| | ARA Section 313 (specific toxic chemical listings) |
| Ν | None of the ingredients is listed. |
| • T | SCA (Toxic Substances Control Act) |
| A | ll ingredients are listed. |
| • P | Prop 65 - Chemicals known to cause cancer |
| Ν | None of the ingredients is listed. |
| • 0 | ancerogenity categories |
| • E | CPA (Environmental Protection Agency) |
| N | None of the ingredients is listed. |
| • I | ARC (International Agency for Research on Cancer) |
| N | None of the ingredients is listed. |
| • N | TP (National Toxicology Program) |
| N | None of the ingredients is listed. |
| • T | LV (Threshold Limit Value established by ACGIH) |
| Ν | None of the ingredients is listed. |
| | IOSH-Ca (National Institute for Occupational Safety and Health) |
| Ν | None of the ingredients is listed. |
| • 0 | SHA-Ca (Occupational Safety & Health Administration) |
| Ν | None of the ingredients is listed. |
| • M | Markings according to EU guidelines: |
| | Code letter and hazard designation of product: |
| I | Mazard-determining components of labelling: sophoronediamine lkyletheramine |
| H C M H | Risk phrases: Marmful in contact with skin and if swallowed. Causes burns. May cause sensitization by skin contact. Marmful to aquatic organisms, may cause long-term adverse effects in the Aquatic environment |
| 6 0 | 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

— USA —