

1 Identification of substance:

- **Product details:**
- **Trade name:** EPIKURE™ Curing Agent MGS LH 335
- **Article number:** 16S-00034/3
- **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:**

1477-55-0	m-xylylenediamine	< 25%
80-05-7	Bisphenol A	< 20%
	Alkyletheramine	< 20%
100-51-6	Benzenemethanol	< 20%
2855-13-2	Isophoronediamine	< 20%
25620-58-0	trimethylhexane-1,6-diamine	< 10%

3 Hazards identification

- **Information pertaining to particular dangers for man and environment**
Harmful by inhalation and if swallowed.
Causes severe burns.
May cause sensitization by skin contact.
Possible risk of impaired fertility
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- **Classification system**
- **NFPA ratings (scale 0 - 4)**
Health: 4
Fire: 1
Reactivity: 0
- **HMIS ratings (scale 0 - 4)**
Health: *4
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.

(Contd. on page 2)

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

Printing date 09/17/2007

Reviewed on 06/18/2007

Trade name: EPIKURE™ Curing Agent MGS LH 335

(Contd. of page 1)

- **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.
- **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, 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.

(Contd. on page 3)

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

Printing date 09/17/2007

Reviewed on 06/18/2007

Trade name: EPIKURE™ Curing Agent MGS LH 335

(Contd. of page 2)

- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.

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:	Blue
Odor:	amine-like
- **Change in condition**

Boiling point/Boiling range:	> 200°C (> 392°F)
------------------------------	-------------------
- **Flash point:** > 100°C (> 212°F) (ISO 2719)
- **Explosion limits:**

Lower:	1.2 Vol %
Upper:	13.0 Vol %
- **Vapor pressure at 20°C (68°F):** 0.3 hPa (0 mm Hg)
- **Density at 20°C (68°F):** ca. 1.0 g/cm³
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix

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 products of decomposition:**
Corrosive gases/vapors
Ammonia

-USA-

(Contd. on page 4)

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

Printing date 09/17/2007

Reviewed on 06/18/2007

Trade name: EPIKURE™ Curing Agent MGS LH 335

(Contd. of page 3)

11 Toxicological information• **Acute toxicity:**• **LD/LC50 values that are relevant for classification:****1477-55-0 m-xylylenediamine**

Oral	LD50	1040 mg/kg (rat)
Inhalative	LC50/4 h	2.4 mg/l (rat)

2855-13-2 Isophoronediamine

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

• **Primary irritant effect:**• **on the skin:** Strong caustic effect on skin and mucous membranes.• **on the eye:** Strong 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:** III• **Proper shipping name (technical name):** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylenediamine)• **Label** 8• **Land transport ADR/RID (cross-border)**• **ADR/RID class:** 8 Corrosive substances• **Packaging group:** III• **Description of goods:** 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylenediamine)• **Maritime transport IMDG:**• **IMDG Class:** 8• **UN Number:** 2735• **Label** 8• **Packaging group:** III• **EMS Number:** F-A,S-B• **Marine pollutant:** -• **Proper shipping name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylenediamine)• **Air transport ICAO-TI and IATA-DGR:**• **ICAO/IATA Class:** 8

(Contd. on page 5)

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

Printing date 09/17/2007

Reviewed on 06/18/2007

Trade name: EPIKURE™ Curing Agent MGS LH 335

(Contd. of page 4)

- UN/ID Number: 2735
- Label: 8
- Packaging group: III
- Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(m-xylylenediamine)

15 Regulations

- SARA Section 355 (extremely hazardous substances)

108-95-2 | phenol

- SARA Section 313 (specific toxic chemical listings)

80-05-7 | Bisphenol A

108-95-2 | phenol

- 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)

108-95-2 | phenol

D

- IARC (International Agency for Research on Cancer)

108-95-2 | phenol

3

- NTP (National Toxicology Program)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

108-95-2 | phenol

A4

- 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.

- Remarks: 108-95-2 phenol: < 0.1 %

- Markings according to EU guidelines:

- Code letter and hazard designation of product:
Corrosive

- Hazard-determining components of labelling:

m-xylylenediamine
Bisphenol A
Isophoronediamine
trimethylhexane-1,6-diamine

- Risk phrases:

Harmful by inhalation and if swallowed.
Causes severe burns.
May cause sensitization by skin contact.
Possible risk of impaired fertility
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- National regulations

- Information about limitation of use:

Employment restrictions concerning women of child-bearing age must be observed.

(Contd. on page 6)

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

Printing date 09/17/2007

Reviewed on 06/18/2007

Trade name: EPIKURE™ Curing Agent MGS LH 335

(Contd. of page 5)

Employment restrictions concerning pregnant and lactating women must be observed.

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

-USA-