

1 Identification of substance:

- **Product details:**
- **Trade name:** EPIKOTE™ Resin MGS LR 335
- **Article number:** 16S-00052/2
- **Application of the substance / the preparation** Laminating resin systems
- **Manufacturer/Supplier:**
Hexion Specialty Chemicals Stuttgart GmbH
Am Ostkai 21 + 22
D-70327 Stuttgart
Tel.: ++49/(0)711/38 98 00 - 0
Fax.: ++49/(0)711/38 98 00 - 11
- **Information department:**
see: chapter 16 (contact)
E-Mail: eckhard.ruehle@hexion.com
- **Emergency information:**
see manufacturer/supplier
or call CHEMTREC®
NATIONAL: 800-424-9300
INTERNATIONAL: 703-527-3887

2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Modified epoxy resin

Dangerous components:

25068-38-6	Bisphenol A-epichlorohydrin resin, mw ≤ 700	> 50%
9003-36-5	Bisphenol F-epichlorohydrin resin, mw ≤ 700	< 20%
16096-31-4	1,6-Hexanediol diglycidyl ether	< 10%

3 Hazards identification

- **Information pertaining to particular dangers for man and environment**
Irritating to eyes and skin.
May cause sensitization by skin contact.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Contains epoxy constituents. See information supplied by the manufacturer.
- **Classification system**
- **NFPA ratings (scale 0 - 4)**
Health: 1
Fire: 1
Reactivity: 0
- **HMIS ratings (scale 0 - 4)**
Health: 1
Fire: 1
Reactivity: 0
- **Additional information:**
The residue of epichlorohydrin corresponds to the recommendations of
PlasticsEurope (ERC):
modified epoxy resins < 10 ppm (0,001 %).

4 First aid measures

- **General information** 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.

(Contd. on page 2)

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

Printing date 09/17/2007

Reviewed on 08/05/2007

Trade name: EPIKOTE™ Resin MGS LR 335

(Contd. of page 1)

- **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact**
Rinse opened eye for several minutes under running water.
Seek immediate medical advice.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.

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:
Carbon monoxide (CO)
In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen chloride (HCl)
- **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:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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:**
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.

USA

(Contd. on page 3)

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

Printing date 09/17/2007

Reviewed on 08/05/2007

Trade name: EPIKOTE™ Resin MGS LR 335

(Contd. of page 2)

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.
- **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:	Yellowish
Odor:	Weak, characteristic
- **Change in condition**
Boiling point/Boiling range: > 200°C (> 392°F)
- **Flash point:** > 125°C (> 257°F) (ISO 2719)
- **Vapor pressure at 20°C (68°F):** < 0.1 hPa (< 0 mm Hg)
- **Density at 20°C (68°F):** 1.15 - 1.17 g/cm³ (DIN 53217)
- **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**
May produce violent reactions with bases and numerous organic substances including alcohols and amines
Exothermic polymerization
- **Dangerous products of decomposition:** Irritant gases/vapors

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

25068-38-6 Bisphenol A-epichlorohydrin resin, mw ≤ 700

Oral	LD50	11400 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

(Contd. on page 4)

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

Printing date 09/17/2007

Reviewed on 08/05/2007

Trade name: EPIKOTE™ Resin MGS LR 335

(Contd. of page 3)

- **Sensitization:** Sensitization possible through skin contact.

12 Ecological information:

- **Ecotoxicological effects:**
- **Acquatic toxicity:**
- **Type of test Effective concentration Method Assessment**

Rainbow trout	LC 50 (96h)	1.5 - 7.7 mg/l	
Daphnia magna	EC 50 (24h)	1.1 - 3.6 mg/l	
Green algae	EC 50 (96 h)	220 mg/l	

(bisphenol-A-epichlorohydrin resin MG ≤ 700)
- **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:** 9
- **Identification number:** UN3082
- **Packing group:** III
- **Proper shipping name (technical name):** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxide derivatives)
- **Label:** 9
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 9 Miscellaneous dangerous substances and articles
- **Packaging group:** III
- **Description of goods:** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXIDE DERIVATIVES)
- **Maritime transport IMDG:**
- **IMDG Class:** 9
- **UN Number:** 3082
- **Label:** 9 + MP
- **Packaging group:** III
- **EMS Number:** F-A,S-F
- **Marine pollutant:** yes
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxide derivatives)
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 9
- **UN/ID Number:** 3082
- **Label:** 9
- **Packaging group:** III
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxide derivatives)

USA

(Contd. on page 5)

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

Printing date 09/17/2007

Reviewed on 08/05/2007

Trade name: EPIKOTE™ Resin MGS LR 335

(Contd. of page 4)

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.

- **Carcinogenicity 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.

- **Remarks:**

[16096-31-4] 1,6-Hexanediol diglycidyl ether
Subject to TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt. E), SNUR-Ref. 40 CFR 721.5575

- **Markings according to EU guidelines:**

- **Code letter and hazard designation of product:**

Irritant
Dangerous for the environment

- **Hazard-determining components of labelling:**

Bisphenol A-epichlorohydrin resin, mw ≤ 700
Epoxide derivatives mw ≤ 700

- **Risk phrases:**

Irritating to eyes and skin.
May cause sensitization by skin contact.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- **Special labeling of certain preparations:**

Contains epoxy constituents. See information supplied by the manufacturer.

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