

1 Identification of substance:

- **Product details:**
- **Trade name:** EPIKURE™ Curing Agent 105
- **Article number:** 16-0716000/2
- **Application of the substance / the preparation**
Epoxy resin systems
Hardener / Curing agent
- **Manufacturer/Supplier:**
Hexion Specialty Chemicals B.V.
Postbus 606
3190 AN Hoogvliet Rt.
Netherlands
Tel.: +31 65 25 11 07 9
- **Information:**
see: Section 16 (Contact)
E-Mail: ulrich.busch@hexion.com
- **Emergency information:**
Emergency telephone number:
CARECHEM24
+44 (0) 2087 628322

2 Hazards identification

- **Hazard designation:**



C Corrosive

- **Information pertaining to particular dangers for man and environment**
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 35 Causes severe burns.
R 43 May cause sensitisation by skin contact.
R 68 Possible risk of irreversible effects.

3 Composition/information on ingredients

- **Chemical characterization:**
- **Identification number(s):**
- **EINECS Number:** Not applicable (preparation)
- **Chemical characterization**
- **Description:** Hardener for epoxy resins

- **Dangerous components:**

CAS: 100-51-6 EINECS: 202-859-9	Benzyl alcohol Xn; R 20/22	< 20%
CAS: 1477-55-0 EINECS: 216-032-5	m-xylylenediamine C, Xn; R 20/22-35-43-52/53	< 20%
CAS: 108-95-2 EINECS: 203-632-7	phenol Muta. Cat. 3; T, C; R 23/24/25-34-48/20/21/22-68	< 5%

- **Additional information**
For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information**
Take affected persons out of danger area and instruct to lie down.
Instantly remove any clothing soiled by the product.

(Contd. on page 2)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.04.2008

Revision: 27.03.2008

Trade name: EPIKURE™ Curing Agent 105

(Contd. of page 1)

- **After inhalation**
Supply fresh air and call for doctor for safety reasons.
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact**
Instantly wash with water and soap and rinse thoroughly.
Cover wound with a sterile dressing.
Seek medical treatment.
- **After eye contact**
Rinse opened eye for several minutes under running water. Then consult 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 jet. Fight larger fires with water spray jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents**
Water with a full water jet.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Can be released in case of fire
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
Ammonia
- **Protective equipment:**
Wear full protective suit.
Wear self-contained breathing apparatus.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter drains.
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 drainage system, surface or ground water.
Do not allow to enter the ground/soil.
- **Measures for cleaning/collecting:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
Dispose of 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 containers:**
Storehouses and workplaces must be sufficiently ventilated.

(Contd. on page 3)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.04.2008

Revision: 27.03.2008

Trade name: EPIKURE™ Curing Agent 105

(Contd. of page 2)

Prevent any penetration 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 containers.

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:**

108-95-2 phenol

WEL	Long-term value: 2 ppm Sk
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- **Personal protective equipment**
- **General protective and hygienic measures**
Take off immediately all contaminated clothing
Wash hands during breaks and at the end of the 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 (EN 374)
- **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:** Tightly sealed safety glasses (EN 166).
- **Body protection:** Protective work clothing (EN 340).

9 Physical and chemical properties:

- **General Information**

Form:	Fluid
Colour:	Yellow-brown
Odour:	Amine-like

- **Change in condition**
Boiling point/Boiling range: > 200°C
- **Flash point:** 123°C (ISO 2719)
- **Ignition temperature:** > 350°C (DIN 51794)
- **Critical values for explosion:**
Lower: ca. 1.3 Vol %
Upper: ca. 13 Vol %
- **Vapour pressure at 20°C:** 0.28 hPa
- **Density at 20°C** 1.11 - 1.15 g/cm³ (DIN 53217)
- **Solubility in / Miscibility with**
Water: Slightly soluble
- **pH-value (20 g/l) at 20°C:** ca. 9.9 (ISO 8975)

(Contd. on page 4)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.04.2008

Revision: 27.03.2008

Trade name: EPIKURE™ Curing Agent 105

(Contd. of page 3)

- **Viscosity:**
dynamic at 25°C: 2000 - 3000 mPa*s (ISO 9371)

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/vapours

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	2400 mg/l (rat)

108-95-2 phenol

Oral	LD50	414 mg/kg (rat)
Dermal	LD50	670 mg/kg (rat)
Inhalative	LC50/4 h	316 mg/m3 (rat)

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible by skin contact.
- **Additional toxicological information:**
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

12 Ecological information:

- **General notes:**
Do not allow product to reach underground or surface water or sewage system.

13 Disposal considerations

- **Product:**
- **Recommendation**
Remove according to local authority recommendations, e.g. convey to a suitable incinerator.
- **European waste catalogue**
The waste code classification is to be carried out according to the European Waste Catalogue (EWC) specifically for each branch of industry and each type of process.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID Class:** 8 Corrosive substances.
- **Hazard Index Number:** 80
- **Substance Index Number:** 2735

(Contd. on page 5)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.04.2008

Revision: 27.03.2008

Trade name: EPIKURE™ Curing Agent 105

(Contd. of page 4)

- **Packaging group:** III
- **Label:** 8
- **Designation 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:** -
- **Correct technical name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylenediamine)
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2735
- **Label** 8
- **Packaging group:** III
- **Correct technical name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-xylylenediamine)

15 Regulatory information

- **Designation according to EC guidelines:**
The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)
- **Code letter and hazard designation of product:**
C Corrosive
- **Hazard-determining components of labelling:**
phenol
m-xylylenediamine
- **Risk phrases:**
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
35 Causes severe burns.
43 May cause sensitisation by skin contact.
68 Possible risk of irreversible effects.
- **Safety phrases:**
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.
- **National regulations**
- **Other regulations, limitations and prohibitive regulations**
Document of PlasticsEurope (ERC): "Epoxy resins and curing agents (Toxicology, Health, Safety and Environmental Aspects)"

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 6)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 08.04.2008

Revision: 27.03.2008

Trade name: EPIKURE™ Curing Agent 105

(Contd. of page 5)

- **Relevant R-phrases**

These R-phrases refer to section 3: "Dangerous Components"

20/22 Harmful by inhalation and if swallowed.

23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

34 Causes burns.

35 Causes severe burns.

43 May cause sensitisation by skin contact.

48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

68 Possible risk of irreversible effects.

- **Department issuing data specification sheet:** Product Safety Department

- **Contact:**

Product Safety Department

Tel.: **49/203/4296-206

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