

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



Printing date 28.01.2009

Revision: 13.12.2007

1 Identification of substance

- **Product details**
- **Trade name** Injection Resin EP 100, Comp. A
Viscacid Epoxy Injection Resin 100, Comp. A
- **Article number:** 0944
- **Application of the substance / the preparation** Epoxy resin
- **Manufacturer/Supplier:**
Remmers Baustofftechnik GmbH
Postfach 1255
D-49624 Lönningen / Germany
Tel.: 05432/83-0
Fax: 05432/3985
- **Informing department:**
Product Safety department: Tel.: +49 (0)5432/83-138/-538
E-Mail: sales@remmers.co.uk
- **Emergency information:**
during working hours:
U.K.: Tel.: +44 (0) 845 373 0103
Far East: Tel.: +65(0) 67410277
Head Office Germany: Tel.: +49 (0)5432 83 185
after working hours: Tel.: +49 (0)171/6428-297

2 Hazards identification

- **Hazard designation:**
- | | | |
|---|---|---|
|  |  | Xn Harmful
N Dangerous for the environment |
|---|---|---|

- **Information pertaining to particular dangers for man and environment**
R 20/21 Harmful by inhalation and in contact with skin.
R 36/38 Irritating to eyes and skin.
R 43 May cause sensitisation by skin contact.
R 51/53 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**
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Bisphenol-A-epoxide resin modified with reactive thinner

· **Dangerous components:**

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) Xi, N; R 36/38-43-51/53	60-<80%
CAS: 2425-79-8 EINECS: 219-371-7	1,4-bis(2,3-epoxypropoxy)butane Xn, Xi; R 20/21-36/38-43	20-<40%

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

4 First aid measures

- **General information**

Immediately remove any clothing soiled by the product.
 In case of irregular breathing or respiratory arrest, provide artificial respiration.

- **After inhalation**

Take affected persons into the open air and position comfortably
 Seek medical treatment in case of complaints.
 In case of unconsciousness bring patient into stable side position for transport.

- **After skin contact**

Wash immediately with water and soap and rinse thoroughly.
 If skin irritation continues, consult a doctor.
 Do not use solvents or thinners!

- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

- **After swallowing**

Allow to drink 0.5 - 0.8 l water, if possible with ground medicinal charcoal. In case of spontaneous vomiting, make sure that vomit can freely pass so that suffocation is prevented - stable side position. Allow to drink water again. Artificial induction of vomiting should only be carried out by trained rescue personnel.
 Do not administer anything if the patient is unconscious or has convulsions. Call doctor immediately.

5 Fire fighting measures

- **Suitable extinguishing agents**

Carbon dioxide
 Foam
 Fire-extinguishing powder
 Water mist

- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

- **Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.
 Ensure adequate means of retaining the water used for extinguishing
 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.
 Ensure adequate ventilation

- **Measures for environmental protection:**

Do not allow product to reach sewage system or water bodies.
 Do not allow to enter the ground/soil.

- **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose of contaminated material as waste according to item 13.
 Ensure adequate ventilation.

7 Handling and storage

- **Handling**

- **Information for safe handling:** Use only in well ventilated areas.

- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

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- **Storage**
- **Requirements to be met by storerooms and containers:** Store only in the original container.
- **Information on storage in a common storage facility:** Store away from food.
- **Further information about storage conditions:**
 Store cool and dry in tightly closed containers.
 Store container in a well ventilated position.
 Protect from frost.

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:**
 The product does not contain any relevant quantities of materials with limit values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during compilation were used as a basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
 Keep away from food, beverages and animal feed.
 Immediately remove soiled, saturated clothing.
 Do not eat, drink or smoke while working.
 Use skin protection cream for preventive skin protection.
 Wash hands before pauses and after work.
 Avoid contact with eyes and skin.
 Do not inhale gases / vapours / aerosols.
- **Respiratory equipment:**
 In case of insufficient ventilation, use respiratory protection:
 Filter A (brown)
 Only use ambient air independent respiratory equipment in pits, shafts and silos!
- **Protection of hands:** Long cuffed gloves
- **Material of gloves:** 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.
 Break through time: max. 240 min (DIN EN 374).
- **Eye protection:** Tightly sealed safety glasses.
- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	clear
Odour:	Characteristic

· Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	> 200°C

Flash point:	142°C (DIN 51758 huhe und Schu)
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Ignition temperature:	
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Decomposition temperature:	> 200°C
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· Self-inflammability:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive.
· Vapour pressure at 20°C:	0.3 Pa
· Density at 25°C	1.1 - 1.15 g/cm ³ (DIN 51757 huhe und Schu)
· Solubility in / Miscibility with Water:	Insoluble
· pH-value at 20°C:	ca. 6.0 - 7.0 (1:1 in H ₂ O huhe und Schu)
· Viscosity: dynamic at 25°C:	280 - 360 mPas

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Thermic decomposition as of approx. 200 °C.
- **Materials to be avoided:** Strong acids, strong bases and strong oxidising agents.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous decomposition products:**
Carbon monoxide and carbon dioxide
as well as other toxic gases and vapours.

11 Toxicological information

- **Acute toxicity:**

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

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Oral	LD50	> 10000 mg/kg (Ratte)
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Dermal	LD50	> 2000 mg/kg (Ratte)
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Oral: LD50: > 5000 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:**

Irritates skin and mucous membranes.

Species: rabbit

- **on the eye:**

Irritating effect.

Species: rabbit

- **Sensitisation:**

Sensitisation possible by skin contact.

Species: guinea pig

- **Additional toxicological information:**

The product shows the following dangers based on the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

harmful

Irritant

- **Sensitisation** May cause sensitisation by skin contact.

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12 Ecological information:

- **General notes:**

Water hazard class 2 : hazardous to water.

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

13 Notes on disposal:

- **Product:**

- **Recommendation**

Not hardened material must be disposed of as hazardous waste according to official regulations. Hardened product remains may be disposed of as building rubble or put into household garbage.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11	waste paint and varnish containing organic solvents or other dangerous substances
20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**



- **ADR/RID-GGVS/E Class:** 9 (M6) Miscellaneous hazardous substances and articles.

- **Kemler Number:** 90

- **UN-Number:** 3082

- **Packaging group:** III

- **Danger sign:** 9

- **Designation of goods:** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

- **Limited quantities (LQ)** LQ7

- **Tunnel restriction code** E

- **Remarks:** TREM-card No.: 93

- **Maritime transport IMDG/GGVSea:**



- **IMDG/GGVSea Class:** 9

- **UN Number:** 3082

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- **Label** 9
- **Packaging group:** III
- **Marine pollutant:** -
- **Correct technical name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 9
- **UN/ID Number:** 3082
- **Label** 9
- **Packaging group:** III
- **Correct technical name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

15 Regulatory information

- **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Guidelines / Ordinance on Hazardous Materials (GefStoffV)

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



Xn Harmful
N Dangerous for the environment

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

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
1,4-bis(2,3-epoxypropoxy)butane

- **Risk phrases:**

20/21 Harmful by inhalation and in contact with skin.
36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Safety phrases:**

2 Keep out of the reach of children.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of soap and water.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
46 If swallowed, seek medical advice immediately and show this container or label.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

- **Special labelling of certain preparations:**

Contains epoxy constituents. See information supplied by the manufacturer.

- **National regulations**

- **Ordinance on hazardous incidents (StfV):** Ordinance on hazardous incidents, appendix: not named

- **Water hazard class:**

German Water hazard class 2: hazardous to water.

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according to appendix 4 VwVwS

Other regulations, limitations and prohibition ordinances

APME document: "Epoxy resins and hardener: Toxicology, working safety, environment."

- **Professional Association (BG) Code of Practice:** BGR 227 - "Epoxy Resins"

16 Other information:

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.
Delivery specifications are found in the respective Technical Information Sheets.

Relevant R-phrases

20/21 Harmful by inhalation and in contact with skin.

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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