

Material Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.08.2007

Revision: 08.12.2006

1 Identification of substance

- **Product details**
- **Trade name** Epoxy Universal, Component B
Relö EP Universal, Component B
- **Article number:** 5590, 5591
- **Application of the substance / the preparation** Coating
- **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

- **Information pertaining to particular dangers for man and environment**
R 10 Flammable.
R 20/21 Harmful by inhalation and in contact with skin.
R 38 Irritating to skin.
- **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:** Tar-free, solvent based coating on epoxide resin base.

- **Dangerous components:**

CAS: 1330-20-7	xylene, mixed isomers, pure	Xn, Xi; R 10-20/21-38	20-<40%
EINECS: 215-535-7			

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

Trade name **Epoxy Universal, Component B**
Relö EP Universal, Component B

(Contd. of page 1)

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**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

· **After skin contact**

Wash immediately with water and soap and rinse thoroughly.

Do not use solvents or thinners!

If skin irritation continues, consult a doctor.

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

· **After swallowing**

Rinse out mouth immediately with plenty of water and administer plenty of water in small swallows (diluting effect).

Do not induce vomiting; call for medical help immediately.

5 Fire fighting measures

· **Suitable extinguishing agents**

CO₂, extinguishing powder or water jet. Fight larger fires with water 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 flue gases:**

May form explosive gas-air mixtures.

May be released in case of fire

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

Hydrogen chloride (HCl)

Vapours are heavier than air and spread out over the ground. Ignition over greater distances is possible.

· **Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

· **Additional information**

Cool endangered containers with water spray jet.

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.

Ensure adequate ventilation

Keep away from ignition sources

· **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.

Trade name **Epoxy Universal, Component B**
Relö EP Universal, Component B

(Contd. of page 2)

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Use only in well ventilated areas.
Open and handle container with care.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
- **Storage**
- **Requirements to be met by storerooms and containers:**
Ventilate storage and work rooms sufficiently.
Install solvent resistant, sealed floor.
- **Information on storage in a common storage facility:**
Suitable material for containers and pipes: Light metals and their alloys.
- **Further information about storage conditions:**
Store cool and dry in tightly closed containers.
Store container in a well ventilated position.
Protect from heat and direct sunlight.
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:**

1330-20-7 xylene, mixed isomers, pure

WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm
-----	------------------------------------------------------------------------------------------------------

- **Additional information:** The lists that were valid during compilation were used as a basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
Immediately remove soiled, saturated clothing.
Store protective clothing separately.
Keep away from food, beverages and animal feed.
Do not eat, drink or smoke while working.
Apply solvent-resistant skin protection preparation before beginning work.
Wash hands before pauses and after work.
Avoid contact with eyes and skin.
Do not inhale gases / vapours / aerosols.
- **Respiratory equipment:**
In case of brief exposure or low pollution load, use respiratory protection equipment with filter. In case of intensive or longer exposure, use self-contained respiratory protection equipment.
Short term filter device:
Filter A/P2.
Only use ambient air independent respiratory equipment in pits, shafts and silos!
- **Protection of hands:**
Solvent resistant gloves
Long cuffed gloves
- **Material of gloves**
Nitrile rubber, NBR
Butyl rubber, BR
- **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.

(Contd. on page 4)

Material Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.08.2007

Revision: 08.12.2006

Trade name **Epoxy Universal, Component B**
Relö EP Universal, Component B

(Contd. of page 3)

- **Eye protection:**
Safety glasses
if there is a risk of splashes
- **Body protection:**
Protective work clothing.
Apron

9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	Clear Yellowish
Odour:	Like aromatic solvents

· Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: 137°C

· **Flash point:** 21 - 55°C

· **Self-inflammability:** Product is not self-igniting.

· **Danger of explosion:** Product is not explosive. However, formation of dangerous explosive vapour/air mixtures is possible.

· Explosive Limits:

Lower:	1.7 Vol %
Upper:	7.6 Vol %

· **Vapour pressure at 20°C:** 6.7 hPa

· **Density at 20°C** 1.08 g/cm³

· Solubility in / Miscibility with

Water: Insoluble

· Viscosity:

dynamic at 20°C:	10000 mPas
kinematic:	bei 20 ° C 100 s DIN 53211/4

· Solvent content:

Organic solvents: 25.0 %

· **Solid content:** 75.0 %

10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.
 No decomposition if handled and stored according to specifications.
 Avoid: heat, flames, sparks

· Dangerous reactions

Ignition-capable vapour-air mixtures may develop if stored in large containers or above room temperature
 Used empty containers may contain product gases which form explosive mixtures with air

· **Dangerous decomposition products:** Irritating gases/vapours

GB
(Contd. on page 5)

Material Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.08.2007

Revision: 08.12.2006

Trade name **Epoxy Universal, Component B**
Relö EP Universal, Component B

(Contd. of page 4)

11 Toxicological information

- **Acute toxicity:**

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

1330-20-7 xylene, mixed isomers, pure

Oral	LD50	8700 mg/kg (Ratte)
Dermal	LD50	2000 mg/kg (Kaninchen)
Inhalative	LC50/4 h	6350 mg/l (Ratte)

- **Primary irritant effect:**

- **on the skin:**

No irritating effect.

Dries skin out.

- **on the eye:** No irritating effect.

- **Sensitisation:** No sensitising effect known.

- **Subacute to chronic toxicity:**

Data for xylene:

Repeated exposure causes kidney damage in rats.

Repeated exposure causes liver damage in rats.

Causes slight foctotoxicity with rats, with doses toxic to the mother.

- **Experience with humans:**

Frequent or longer lasting skin contact may degrease and dry out skin which may lead to skin irritation and inflammation (dermatitis).

High concentrations may cause tiredness and dizziness.

- **Additional toxicological information:**

Repeated and prolonged over-exposure may lead to damage of the central nervous system because of the xylene content. An addiction to xylene is possible.

Experience in practice:

Vapours have an irritating effect on eyes and respiratory system.

In high concentrations, vapours may lead to numbness and unconsciousness. Chronic uptake causes central nervous system disorders (headaches, insomnia, etc.)

Prolonged uptake can lead to temporary damage of the liver, kidneys or blood count.

Data applies for xylene (mixed isomers)

12 Ecological information:

- **Information on elimination (persistence and degradability):**

- **Other information:**

Data for xylene:

Easily biodegradable. Resistibility under anaerobic conditions (estimated). Fast photochemical oxidation in the air. Half-time value in the environment: < 1 day (estimated). Ruling loss due to photolysis. Risk of decrease of oxygen in aquatic systems (estimated).

- **Behaviour in environmental systems:**

- **Mobility and bioaccumulation potential:**

Xylene floats on water.

It evaporates within one day from water or ground surfaces.

Dissolved material evaporates quickly. If xylene penetrates the ground, it remains mobile and can pollute ground water.

No essential bioaccumulation.

- **General notes:**

Water hazard class 2 : hazardous to water.

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

GB

(Contd. on page 6)

Material Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.08.2007

Revision: 08.12.2006

Trade name **Epoxy Universal, Component B**
Relö EP Universal, Component B

(Contd. of page 5)

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.

The given refuse codes are recommendations based upon the intended use of the product. Because of special use and disposal conditions at the user's, other codes may apply under other conditions.

- **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:** 3 (F1) Flammable liquids.

- **Kemler Number:** 30

- **UN-Number:** 1263

- **Packaging group:** III

- **Danger sign:** 3

- **Designation of goods:** 1263 PAINT

- **Limited quantities (LQ)** LQ7

- **Tunnel restriction code** E

- **Remarks:** TREM-Card No. 33

- **Maritime transport IMDG/GGVSea:**



- **IMDG/GGVSea Class:** 3

- **UN Number:** 1263

- **Label** 3

- **Packaging group:** III

- **EMS Number:** F-E,S-E

- **Correct technical name:** PAINT

(Contd. on page 7)

Material Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.08.2007

Revision: 08.12.2006

Trade name **Epoxy Universal, Component B**
Relö EP Universal, Component B

(Contd. of page 6)

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



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label** 3
- **Packaging group:** III
- **Correct technical name:** PAINT

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

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

xylene, mixed isomers, pure

· **Risk phrases:**

- 10 Flammable.
- 20/21 Harmful by inhalation and in contact with skin.
- 38 Irritating to skin.

· **Safety phrases:**

- 23 Do not breathe fumes/aerosol.
- 24/25 Avoid contact with skin and eyes.
- 36/37 Wear suitable protective clothing and gloves.
- 51 Use only in well-ventilated areas.

· **National regulations**

· **Technical instructions (air):**

Class	Proportion in %
NK	20-<40

· **Water hazard class:**

Water hazard class 2: hazardous to water.
 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:**

- M 023 "Polyester- und Epoxidharze"
- M 017 "Lösemittel"

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**

- 10 Flammable.
- 20/21 Harmful by inhalation and in contact with skin.
- 38 Irritating to skin.

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