

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

Printing date 27.02.2012

Revision: 27.02.2012

1 Identification of substance

- **Product details**
- **Trade name** Rust Inhibitor EP 2 K, Component A
- **Article number:** 0920
- **Application of the substance / the preparation** Anticorrosion additive
- **Manufacturer/Supplier:**
Remmers Baustofftechnik GmbH
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D-49624 Lönningen / Germany
Tel.: 05432/83-0
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- **Informing department:**
Product Safety department: Tel.: +49 (0)5432/83-138/-538
E-Mail: sales@remmers.co.uk
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U.K.: Tel.: +44 (0) 845 373 0103
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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 36/38 Irritating to eyes and skin.
R 43 May cause sensitisation by skin contact.
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:** Epoxy resin with pigments and filler, contains solvents

· **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	20-40%
CAS: 1330-20-7 EINECS: 215-535-7	xylene, mixed isomers, pure Xn, Xi; R 10-20/21-38	20-40%
CAS: 108-10-1 EINECS: 203-550-1	4-methylpentan-2-one Xn, Xi, F; R 11-20-36/37-66	2.5-5%

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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.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation**

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

In case of unconsciousness bring patient into stable side position for transport.

- **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 and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- **Information for doctor**

- **The following symptoms may occur:**

In case of prolonged/repeated exposure or in high concentrations:

Headache

Dizziness

nausea

anaesthetic effect

Dry skin

Irritating effect on skin and eyes.

Irritating effect on respiratory organs.

- **Treatment**

symptomatic treatment

To avoid dermatitis (skin inflammation), use skin cream.

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.

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6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources
Ensure adequate ventilation
- **Measures for environmental protection:**
Do not allow to enter the ground/soil.
Do not allow product to reach sewage system or water bodies.
Inform responsible authorities in case product reaches bodies of water or sewage system.
Inform responsible authorities if the product penetrates into the ground.
- **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.
Open and handle container with care.
Observe the usual precautionary measures for handling solvents.
- **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.
Store in cool location.
- **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 heat and direct sunlight.
Protect from frost.
Do not smoke in storage areas. Storage temperature: room temperature.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** Use only in well-ventilated areas.

- **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 Sk; BMGV
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108-10-1 4-methylpentan-2-one

WEL	Short-term value: 416 mg/m ³ , 100 ppm Long-term value: 208 mg/m ³ , 50 ppm Sk
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- **Additional information:** The lists that were valid during compilation were used as a basis.

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- **Personal protective equipment**
- **General protective and hygienic measures**
 Immediately remove soiled, saturated clothing.
 Store protective clothing separately.
 Do not eat, drink or smoke while working.
 Keep away from food, beverages and animal feed.
 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:**
 Respiratory protection recommended.
 Short term filter device:
 Filter A (brown)
- **Protection of hands:** Long cuffed gloves
- **Material of gloves** Butyl rubber, BR
- **Penetration time of glove material**
 Break through time: max. 240 min (DIN EN 374).
 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.
- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· General Information

Form:	Viscous
Colour:	Red-brown
Odour:	Aromatic

· Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined

· **Flash point:** 28°C (Setaflash 100 ml/)

· **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:	1.0 Vol %
Upper:	7.0 Vol %

· **Vapour pressure at 20°C:** ca. 8 mbar

· **Density at 20°C** 1.35 g/cm³

· Solubility in / Miscibility with

Water: Insoluble

· Viscosity:

dynamic at 23°C:	1500 mPas
kinematic:	bei 23 ° C 222 s DIN 53211/6

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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
- **Materials to be avoided:**
strong acids
Strong oxidising agents
- **Dangerous reactions**
Reacts with strong oxidising agents
Forms explosive gas mixture with air
Used empty containers may contain product gases which form explosive mixtures with air
- **Dangerous decomposition products:**
None if used properly.
None if stored properly.

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)
Dermal	LD50	> 2000 mg/kg (Ratte)

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:** Irritates skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitisation:** No sensitising effect known.
- **Experience with humans:**
High concentrations may cause tiredness and dizziness.
By inhalation:
In a high concentration irritation of mucous membranes and possible narcotic effect. After prolonged contact: Irritation skin, eyes and mucous membranes.
Frequent or longer lasting skin contact may degrease and dry out skin which may lead to skin irritation and inflammation (dermatitis).
- **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.
- **Sensitisation** May cause sensitisation by skin contact.

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.

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13 Notes on disposal:

- **Product:**

- **Recommendation**

Do not dispose of together with household garbage. Do not allow product to reach sewage system. 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**

20 01 27	paint, inks, adhesives and resins containing dangerous substances
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- **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:** -

- **Remarks:** In drums/vessels < 450 litre:
Transport according to annotations 2.2.3.1.5 ADR because of high viscosity

- **Maritime transport IMDG/GGVSea:**

- **IMDG/GGVSea Class:** -

- **Marine pollutant:** -

- **Remarks:** In drums/vessels < 30 litres:
Transport in accordance with paragraph 2.3.2.5 of the IMDG Code

- **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:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
xylene, mixed isomers, pure

- **Risk phrases:**

10 Flammable.

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

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36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

· Safety phrases:

2 Keep out of the reach of children.

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37 Wear suitable protective clothing and gloves.

46 If swallowed, seek medical advice immediately and show this container or label.

51 Use only in well-ventilated areas.

· Special labelling of certain preparations:

Contains epoxy constituents. See information supplied by the manufacturer.

· Product Code: RE 2.5**· National regulations****· Water hazard class:**

German Water hazard class 2: hazardous to water.

according to appendix 4 VwVwS

· Other regulations, limitations and prohibition ordinances

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

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.

11 Highly flammable.

20 Harmful by inhalation.

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

36/37 Irritating to eyes and respiratory system.

36/38 Irritating to eyes and skin.

38 Irritating to skin.

43 May cause sensitisation by skin contact.

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

66 Repeated exposure may cause skin dryness or cracking.

· Department issuing data specification sheet: Product Safety department