

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 13.08.2008

Version No. 1

Revision: 13.08.2008

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** UZIN KR 421 Komp. A
- **Application of the substance / the preparation** 2-Component Epoxy Resin Adhesive (Component A)
- **Manufacturer/Supplier:**  
UZIN Ltd.  
7/8 Cholswell Court Shippon  
Abingdon, OX 13 6 HW  
Tel. 01235/53 41 06  
Fax 01235/53 41 07
- **Further information obtainable from:**  
Product safety department  
email: msds.info@uzin-utz.com
- **Information in case of emergency:**  
Medical emergencies: +49 30 30 686 790  
Transportation emergencies: +49 621 60 43 333

## 2 Hazards identification

- **Hazard description:**



Xi Irritant

- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 36/38 Irritating to eyes and skin.  
R 43 May cause sensitisation by skin contact.  
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Contains epoxy constituents. See information supplied by the manufacturer.

## 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700) Xi,  N; R 36/38-43-51/53	5 - <10%
CAS: 141-78-6 EINECS: 205-500-4	ethyl acetate Xi,  F; R 11-36-66-67	1 - <5%

- **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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.

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## 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub> powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Mouth respiratory protective device.

## 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 to enter sewers/ surface or ground water.
- **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.  
Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Immediately remove all soiled and contaminated clothing  
Wear suitable protective clothing, gloves and eye/face protection.  
Keep away from foodstuffs, beverages and feed.  
Avoid contact with the eyes and skin.  
Wash hands before breaks and at the end of work.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

### 141-78-6 ethyl acetate

WEL	Short-term value: 400 ppm Long-term value: 200 ppm
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- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing  
Wear suitable protective clothing, gloves and eye/face protection.  
Keep away from foodstuffs, beverages and feed.  
Avoid contact with the eyes and skin.  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

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- **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 goggles

## 9 Physical and chemical properties

- **General Information**

<b>Form:</b>	Pasty
<b>Colour:</b>	Beige
<b>Odour:</b>	Solvent-like

- **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** Undetermined.

- **Flash point:** > 100°C

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density at 20°C:** 1.3 g/cm<sup>3</sup>

- **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 according to specifications.

- **Dangerous reactions**

May produce violent reactions with bases and numerous organic substances including alcohols and amines.  
Exothermic polymerization.

- **Dangerous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity:**

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

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

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

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Trade name: UZIN KR 421 Komp. A

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## 12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **General notes:**  
Harmful to aquatic organisms  
Do not allow product to reach ground water, water course or sewage system.

## 13 Disposal considerations

- **Product:**
- **Recommendation**  
The product contains materials that are harmful to the environment.  
Do not allow product to reach ground water, water course or sewage system.  
Mix both product components, allow to harden, then dispose of as construction waste.
- **Uncleaned packaging:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

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

- **Transport/Additional information:** Not dangerous according to the above specifications.

## 15 Regulatory information

- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**  
Xi Irritant
- **Hazard-determining components of labelling:**  
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )
- **Risk phrases:**  
36/38 Irritating to eyes and skin.  
43 May cause sensitisation by skin contact.  
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Safety phrases:**  
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.  
27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.  
37/39 Wear suitable gloves and eye/face protection.

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**· Special labelling 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.*

**· Relevant R-phrases**11 *Highly flammable.*36 *Irritating to eyes.*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.*66 *Repeated exposure may cause skin dryness or cracking.*67 *Vapours may cause drowsiness and dizziness.***· Department issuing MSDS: Product safety department****· Contact:***Dr. M. Zieger, phone +49 (0)731 4097 207**E-Mail: msds.info@uzin-utz.com*

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## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** UZIN KR 421 Komp. B
- **Application of the substance / the preparation** 2-Component Epoxy Adhesive (Component B)
- **Manufacturer/Supplier:**  
UZIN Ltd.  
7/8 Cholswell Court Shippon  
Abingdon, OX 13 6 HW  
Tel. 01235/53 41 06  
Fax 01235/53 41 07
- **Further information obtainable from:**  
Product safety department  
email: [msds.info@uzin-utz.com](mailto:msds.info@uzin-utz.com)
- **Information in case of emergency:**  
Medical emergencies: +49 30 30 686 790  
Transportation emergencies: +49 621 60 43 333

## 2 Hazards identification

- **Hazard description:**



C Corrosive

- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 21/22 Harmful in contact with skin and if swallowed.  
R 34 Causes burns.  
R 43 May cause sensitisation by skin contact.  
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 2855-13-2 EINECS: 220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine C, Xn; R 21/22-34-43-52/53	50-75%
CAS: 90-72-2 EINECS: 202-013-9	2,4,6-tris(dimethylaminomethyl)phenol Xn, Xi; R 22-36/38	25-50%

- **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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.

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## 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub> powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Mouth respiratory protective device.

## 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 to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Use neutralizing agent.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Immediately remove all soiled and contaminated clothing  
Wear suitable protective clothing, gloves and eye/face protection.  
Keep away from foodstuffs, beverages and feed.  
Avoid contact with the eyes and skin.  
Wash hands before breaks and at the end of work.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing  
Wear suitable protective clothing, gloves and eye/face protection.  
Keep away from foodstuffs, beverages and feed.  
Avoid contact with the eyes and skin.  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

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- **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 goggles

## 9 Physical and chemical properties

- **General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Yellowish
<b>Odour:</b>	Fish-like

- **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** Undetermined.

- **Flash point:** > 100°C

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density at 20°C:** 1 g/cm<sup>3</sup>

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **pH-value at 20°C:** 11

- **Viscosity:**  
**Dynamic at 20°C:** 300 mPas

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Dangerous reactions** Strong exothermic reaction with acids.

- **Dangerous decomposition products:**

At elevated temperatures hazardous decomposition products such as carbon dioxide, carbon monoxide, smoke or nitric oxids may be evolved.

## 11 Toxicological information

- **Acute toxicity:**

- **Primary irritant effect:**

- **on the skin:** Caustic effect on skin and mucous membranes.

- **on the eye:** Strong caustic effect.

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

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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Harmful  
Irritant  
Corrosive

## 12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **General notes:**  
Harmful to aquatic organisms  
Do not allow product to reach ground water, water course or sewage system.

## 13 Disposal considerations

- **Product:**
- **Recommendation**  
The product contains materials that are harmful to the environment.  
Do not allow product to reach ground water, water course or sewage system.  
Mix both product components, allow to harden, then dispose of as construction waste.
- **Uncleaned packaging:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 8 Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 2289
- **Packaging group:** III
- **Hazard label:** 8
- **Description of goods:** 2289 ISOPHORONEDIAMINE, mixture

- **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 2289
- **Label:** 8
- **Packaging group:** III
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** ISOPHORONEDIAMINE, mixture

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



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2289
- **Label** 8
- **Packaging group:** III
- **Proper shipping name:** ISOPHORONEDIAMINE, mixture

## 15 Regulatory information

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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

C Corrosive

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine  
2,4,6-tris(dimethylaminomethyl)phenol

· **Risk phrases:**

- 21/22 Harmful in contact with skin and if swallowed.
- 34 Causes burns.
- 43 May cause sensitisation by skin contact.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

- 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.
- 27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
- 37/39 Wear suitable gloves and eye/face protection.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## 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.

· **Relevant R-phrases**

- 21/22 Harmful in contact with skin and if swallowed.
- 22 Harmful if swallowed.
- 34 Causes burns.
- 36/38 Irritating to eyes and skin.
- 43 May cause sensitisation by skin contact.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing MSDS:** Product safety department

· **Contact:**

Dr. M. Zieger, phone +49 (0)731 4097 207  
E-Mail: msds.info@uzin-utz.com