

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Hazardous according to criteria of Australian Safety and Compensation Council.

### 1 Identification

- **Product identifier**
- **Trade name:** *Resin solution X 50*
- **Article number:** 1234567890
- **Relevant identified uses of the substance or mixture and uses advised against**  
*No further relevant information available.*
- **Application of the substance / the mixture** *Raw material for resins*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Chemix GmbH  
Chemixstrasse 2  
5020 Salzburg*
- **Further information obtainable from:** *Product safety department.*
- **Emergency telephone number:** 123 456 789

Tel.:0043/662/212223

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



*Flam. Liq. 3 H226 Flammable liquid and vapour.*



*Repr. 2 H361 Suspected of damaging fertility or the unborn child.  
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.  
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.*



*Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
STOT SE 3 H336 May cause drowsiness or dizziness.*

- **Label elements**
- **GHS label elements** *The product is classified and labelled according to the Globally Harmonised System (GHS).*
- **Hazard pictograms**



GHS02



GHS07



GHS08

(Contd. on page 2)

AU

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: **Resin solution X 50**

(Contd. of page 1)

- **Signal word** *Danger*

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

*reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq$  700)  
toluene*

- **Hazard statements**

*Flammable liquid and vapour.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

*May cause drowsiness or dizziness.*

*May cause damage to organs through prolonged or repeated exposure.*

*May be fatal if swallowed and enters airways.*

- **Precautionary statements**

*If medical advice is needed, have product container or label at hand.*

*Keep out of reach of children.*

*Read label before use.*

*Keep away from heat/sparks/open flames/hot surfaces. No smoking.*

*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*

*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** *Not applicable.*

- **vPvB:** *Not applicable.*

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**

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

- **Dangerous components:**

25068-38-6	<i>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <math>\leq</math> 700)</i> ⚠ <i>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317</i>	30 - 60%
108-88-3	<i>toluene</i> ⚠ <i>Flam. Liq. 2, H225</i> ⚠ <i>Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304</i> ⚠ <i>Skin Irrit. 2, H315; STOT SE 3, H336</i>	10 - < 30%
141-78-6	<i>ethyl acetate</i> ⚠ <i>Flam. Liq. 2, H225</i> ⚠ <i>Eye Irrit. 2A, H319; STOT SE 3, H336</i>	10 - < 30%
78-92-2	<i>butanol</i> ⚠ <i>Flam. Liq. 3, H226</i> ⚠ <i>Eye Irrit. 2A, H319; STOT SE 3, H335-H336</i>	10 - < 30%
67-63-0	<i>propan-2-ol</i> ⚠ <i>Flam. Liq. 2, H225</i> ⚠ <i>Eye Irrit. 2A, H319; STOT SE 3, H336</i>	10 - < 30%

(Contd. on page 3)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: *Resin solution X 50*

(Contd. of page 2)

· **Additional information:** *For the wording of the listed hazard phrases refer to section 16.*

### 4 First Aid Measures

- **Description of first aid measures**
- **General information:**  
*Immediately remove any clothing soiled by the product.  
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 and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:**  
*Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- **After swallowing:** *If symptoms persist consult doctor.*
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*
- **Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

### 5 Fire Fighting Measures

- **Extinguishing media**
- **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*
- **Special hazards arising from the substance or mixture**  
*During heating or in case of fire poisonous gases are produced.*
- **Advice for firefighters**
- **Protective equipment:** *Mouth respiratory protective device.*

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**  
*Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.*
- **Environmental precautions:**  
*Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.*
- **Reference to other sections**  
*See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.*

-AU-

(Contd. on page 4)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: *Resin solution X 50*

(Contd. of page 3)

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**  
*Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.  
 Prevent formation of aerosols.*
- **Information about fire - and explosion protection:**  
*Keep ignition sources away - Do not smoke.  
 Protect against electrostatic charges.  
 Keep respiratory protective device available.*
- **Conditions for safe storage, including any incompatibilities**
- **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.*
- **Specific end use(s)** *No further relevant information available.*

### 8 Exposure controls and personal protection

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

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

<b>108-88-3 toluene</b>	
WES	Short-term value: 574 mg/m <sup>3</sup> , 150 ppm Long-term value: 191 mg/m <sup>3</sup> , 50 ppm Sk
<b>141-78-6 ethyl acetate</b>	
WES	Short-term value: 1440 mg/m <sup>3</sup> , 400 ppm Long-term value: 720 mg/m <sup>3</sup> , 200 ppm
<b>78-92-2 butanol</b>	
WES	Long-term value: 303 mg/m <sup>3</sup> , 100 ppm
<b>67-63-0 propan-2-ol</b>	
WES	Short-term value: 1230 mg/m <sup>3</sup> , 500 ppm Long-term value: 983 mg/m <sup>3</sup> , 400 ppm

- **Additional information:** *The lists valid during the making were used as basis.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
*Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Avoid contact with the eyes and skin.*
- **Respiratory protection:**  
*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*

(Contd. on page 5)

-AU

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: *Resin solution X 50*

(Contd. of page 4)

· **Protection of hands:**



Protective gloves

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*

*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

· **Material of gloves**

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

· **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

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** *Liquid*  
**Colour:** *According to product specification*

· **Odour:** *Characteristic*

· **Odour threshold:** *Not determined.*

· **pH-value:** *Not determined.*

· **Change in condition**

**Melting point/freezing point:** *Undetermined.*  
**Initial boiling point and boiling range:** *77 - 78°C*

· **Flash point:** *26°C*

· **Flammability (solid, gas):** *Not applicable.*

· **Ignition temperature:** *390°C*

· **Decomposition temperature:** *Not determined.*

· **Auto-ignition temperature:** *Product is not selfigniting.*

· **Explosive properties:** *Product is not explosive. However, formation of explosive air/vapour mixtures are possible.*

· **Explosion limits:**

**Lower:** *1.2Vol %*  
**Upper:** *12Vol %*

· **Vapour pressure at 20°C:** *97hPa*

(Contd. on page 6)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: *Resin solution X 50*

(Contd. of page 5)

· <b>Density:</b>	<i>Not determined.</i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapour density</b>	<i>Not determined.</i>
· <b>Evaporation rate</b>	<i>Not determined.</i>
· <b>Solubility in / Miscibility with water:</b>	<i>Not miscible or difficult to mix.</i>
· <b>Partition coefficient: n-octanol/water:</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not determined.</i>
<b>Kinematic:</b>	<i>Not determined.</i>
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	66.0%
<b>Water:</b>	4.0%
<b>VOC (EC)</b>	66.00 %
<b>Solids content:</b>	50.0%
· <b>Other information</b>	<i>No further relevant information available.</i>

## 10 Stability and Reactivity

- **Reactivity** *No further relevant information available.*
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

## 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

### · LD/LC50 values relevant for classification:

#### *108-88-3 toluene*

<i>Oral</i>	<i>LD50</i>	<i>5,000 mg/kg (rat)</i>
<i>Dermal</i>	<i>LD50</i>	<i>12,124 mg/kg (rabbit)</i>
<i>Inhalative</i>	<i>LC50/4 h</i>	<i>5,320 mg/l (mouse)</i>

#### *141-78-6 ethyl acetate*

<i>Oral</i>	<i>LD50</i>	<i>5,620 mg/kg (rabbit)</i>
<i>Inhalative</i>	<i>LC50/4 h</i>	<i>1,600 mg/l (rat)</i>

#### *78-92-2 butanol*

<i>Oral</i>	<i>LD50</i>	<i>6,480 mg/kg (rat)</i>
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#### *67-63-0 propan-2-ol*

<i>Oral</i>	<i>LD50</i>	<i>5,045 mg/kg (rat)</i>
<i>Dermal</i>	<i>LD50</i>	<i>12,800 mg/kg (rabbit)</i>

(Contd. on page 7)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: *Resin solution X 50*

(Contd. of page 6)

Inhalative	LC50/4 h	30 mg/l (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** *Irritant to skin and mucous membranes.*
- **Serious eye damage/irritation** *Irritating effect.*
- **Respiratory or skin sensitisation** *Sensitisation 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*
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
*Repr. 2*

## 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** *No further relevant information available.*
- **Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **Other adverse effects** *No further relevant information available.*

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
*Must not be disposed together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packaging:**
- **Recommendation:** *Disposal must be made according to official regulations.*

## 14 Transport information

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>   | <p><i>UN1993</i></p>  |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADG</b></li> </ul> | <p><i>1993 FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, TOLUENE)</i></p>              |
| <ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>  | <p><i>FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, TOLUENE), MARINE POLLUTANT</i></p> |

(Contd. on page 8)

# Safety Data Sheet

## according to WHS Regulations


Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: *Resin solution X 50*

(Contd. of page 7)

· IATA	<i>FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, TOLUENE)</i>
· Transport hazard class(es) · ADG, IMDG, IATA	
	
· Class · Label	<i>3 Flammable liquids. 3</i>
· Packing group · ADG, IMDG, IATA	<i>III</i>
· Environmental hazards:	<i>Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <math>\leq 700</math>)</i>
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	<i>Warning: Flammable liquids. 30 F-E,<u>S-E</u> A</i>
· Transport in bulk according to Annex II of Marpol and the IBC Code	<i>Not applicable.</i>
· Transport/Additional information:	
· ADG · Limited quantities (LQ) · Excepted quantities (EQ)	<i>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</i>
· Transport category · Tunnel restriction code	<i>3 D/E</i>
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	<i>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</i>
· UN "Model Regulation":	<i>UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, TOLUENE), 3, III</i>

### 15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· Australian Inventory of Chemical Substances

*All ingredients are listed.*

· Standard for the Uniform Scheduling of Medicines and Poisons

*108-88-3 toluene*

*S6*

· GHS label elements *The product is classified and labelled according to the Globally Harmonised System (GHS).*

(Contd. on page 9)



# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

Trade name: **Resin solution X 50**

(Contd. of page 8)

- **Hazard pictograms**



- **Signal word** *Danger*

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

*reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )  
toluene*

- **Hazard statements**

*Flammable liquid and vapour.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

*May cause drowsiness or dizziness.*

*May cause damage to organs through prolonged or repeated exposure.*

*May be fatal if swallowed and enters airways.*

- **Precautionary statements**

*If medical advice is needed, have product container or label at hand.*

*Keep out of reach of children.*

*Read label before use.*

*Keep away from heat/sparks/open flames/hot surfaces. No smoking.*

*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*

*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*

- **Seveso category**

*E2 Hazardous to the Aquatic Environment*

*P5c FLAMMABLE LIQUIDS*

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** *200 t*

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** *500 t*

- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

## 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 phrases**

*H225 Highly flammable liquid and vapour.*

*H226 Flammable liquid and vapour.*

*H304 May be fatal if swallowed and enters airways.*

*H315 Causes skin irritation.*

*H317 May cause an allergic skin reaction.*

*H319 Causes serious eye irritation.*

*H335 May cause respiratory irritation.*

(Contd. on page 10)

# Safety Data Sheet

## according to WHS Regulations

Printing date 24.08.2017

Version number 1.0

Revision: 23.08.2017

**Trade name: Resin solution X 50**

(Contd. of page 9)

*H336 May cause drowsiness or dizziness.*

*H361 Suspected of damaging fertility or the unborn child.*

*H373 May cause damage to organs through prolonged or repeated exposure.*

· **Department issuing SDS:** *Product safety department.*

· **Contact:** *Dr. Peter Mayer*

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Flam. Liq. 2: Flammable liquids – Category 2*

*Flam. Liq. 3: Flammable liquids – Category 3*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*

*Skin Sens. 1: Skin sensitisation – Category 1*

*Repr. 2: Reproductive toxicity – Category 2*

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

*STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*

*Asp. Tox. 1: Aspiration hazard – Category 1*

-AU-