



MERECO

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/13/2011

Version 5

Reviewed on 05/13/2011

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

### · Product identifier

· Trade name: **Mereco XLN-589 Base**

· Application of the substance / the preparation  
Epoxy resin

### · Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Mereco Division  
Metachem Resins Corporation  
1505 Main Street  
West Warwick, RI 02893  
USA Phone +1 / 401 / 822-9300

· Information department: Technical department.  
email = [info@mereco.com](mailto:info@mereco.com)

· Emergency telephone number: Telephone: (401) 822-9300

## \* 2 Composition/information on ingredients

### · Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with non-hazardous additions.

· Components:		
	Mineral filler	Xi R36/37/38
	Diglycidyl Ether Bisphenol-A epoxy resin	Xi R36/38-43; N R51/53
	Polyglycol diepoxide resin	Xi R36/38
	inorganic filler	Xi R36/37
84-74-2	dibutyl phthalate	T Repr. Cat. 2, 3 R61; Xn R62; N R50

### · SVHC

84-74-2	dibutyl phthalate
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### · Additional information:

For the wording of the listed risk phrases refer to section 16.

This resin is a blended mixture of liquid resins and mineral, ceramic or organic fillers. These fillers do not pose airborne hazards to the user of this formulated product because they are completely encapsulated in the resin mass. If any of the specific fillers are hazardous in accordance with Section 313 of the Emergency Planning and Community Right-to-know Act (EPCRA) they are identified in section 15 of this MSDS (SARA Section 313).

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## \* 3 Hazards identification

### · Classification of the substance or mixture

#### · Classification according to Directive 67/548/EEC or Directive 1999/45/EC

T; Toxic

R61: May cause harm to the unborn child.

Xn; Harmful

R62: Possible risk of impaired fertility.

Xi; Irritant

R36/37/38-43: Irritating to eyes, respiratory system and skin. May cause sensitisation by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### · Information concerning

##### particular hazards for

##### human and environment:

The product has to be labelled due to the calculation procedure of international guidelines.

#### · Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

### · Label elements

#### · Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals. The product has been classified and marked in accordance with directives on hazardous materials.

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

T Toxic

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

Diglycidyl ether Bisphenol-A epoxy resin  
dibutyl phthalate

#### · Risk phrases:

61 May cause harm to the unborn child.  
 36/37/38 Irritating to eyes, respiratory system and skin.  
 43 May cause sensitisation by skin contact.  
 62 Possible risk of impaired fertility.  
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### · Safety phrases:

2 Keep out of the reach of children.  
 28 After contact with skin, wash immediately with plenty of soap and water.  
 37/39 Wear suitable gloves and eye/face protection.

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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.

**· Classification system:**

**· NFPA ratings (scale 0 - 4)**

Health = 2  
Fire = 1  
Reactivity = 0

**· HMIS-ratings (scale 0 - 4)**

Health = \*2  
Fire = 1  
Reactivity = 0

## 4 First aid measures

**· After inhalation:**

Supply fresh air. For added safety, call a doctor. In case of unconsciousness place patient in a stable 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.

## \* 5 Firefighting measures

**· Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**· Special hazards arising from the substance or mixture**

No further relevant information available.

**· Protective equipment:**

No special measures required.

## \* 6 Accidental release measures

**· Personal precautions, protective equipment and emergency procedures**

Not required.

**· Environmental precautions:**

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 of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

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- **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.

This material contains dibutyl phthalate which is listed as a hazardous material according to CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980; 40 CFR 302.4). This material has a Reportable Quantity (RQ) of 100 lb (for dibutyl phthalate).

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## \* 7 Handling and storage

- **Handling:**
    - **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.  
Use only in well ventilated areas.
    - **Information about protection against explosions and fires:** 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 receptacle tightly sealed.
    - **Specific end use(s)** No further relevant information available.
- 

## 8 Exposure controls/personal protection

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

· <b>Components with limit values that require monitoring at the workplace:</b>	
<b>84-74-2 dibutyl phthalate</b>	
PEL	5 mg/m <sup>3</sup>
REL	5 mg/m <sup>3</sup>
TLV	5 mg/m <sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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.  
Avoid contact with the eyes and skin.

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- **Breathing equipment:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
  - **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 is based on consideration of the penetration times, rates of diffusion and the degradation of the material.
  - **Material of gloves** The selection of suitable gloves depends not only 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 penetration time has to be determined by the glove manufacturer and has to be observed.
  - **Eye protection:** Tightly sealed goggles
- 

## \* 9 Physical and chemical properties

· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Pasty
· <b>Color:</b>	Gray
· <b>Odor:</b>	Mild
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	201°C
· <b>Flash point:</b>	154°C
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	390°C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.

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· <b>Explosion limits:</b>	
· <b>Lower:</b>	0.1 Vol %
· <b>Upper:</b>	2.0 Vol %
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20°C:</b>	2 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Not miscible or difficult to mix.
· <b>Segregation coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

## \* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with amines.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Irritant gases/vapors

## 11 Toxicological information

### · Acute toxicity:

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>84-74-2 dibutyl phthalate</b>		
Oral	LD50	8000 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)
<b>polyglycol diepoxide resin</b>		
Oral	LD50	4000 mg/kg (rat)

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Dermal	LD50	2000 mg/kg (rat)
<b>7631-86-9 silicon dioxide, chemically prepared</b>		
Oral	LD50	10000 mg/kg (rat)

- **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 internally approved calculation methods for preparations:  
Irritant

## \* 12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
- **Ecotoxicological effects:**
  - **Remark:** Harmful to fish
- **Additional ecological information:**
  - **General notes:** Water hazard class 2 (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.  
Harmful to aquatic organisms

## 13 Disposal considerations

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

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## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>DOT regulations:</b></li> <li>· <b>Hazard class:</b> -</li> <li>· <b>Hazardous substance:</b> Not Regulated</li> <li>· <b>Proper shipping name (technical name):</b> Not Regulated</li> </ul>	<p>The CERCLA Reportable Quantity (RQ) for this material is 100 lb, minimum. Quantities greater than 100 lb must be shipped as: UN 3082 Environmentally hazardous substances, liquid, n.o.s. (dibutyl phthalate) Class = 9 Packing Group III Label = 9</p>
<ul style="list-style-type: none"> <li>· <b>Land transport ADR/RID (cross-border):</b></li> <li>· <b>ADR/RID class:</b> -</li> </ul>	Not Regulated
<ul style="list-style-type: none"> <li>· <b>Maritime transport IMDG:</b></li> <li>· <b>IMDG Class:</b> -</li> <li>· <b>Marine pollutant:</b> Yes</li> </ul>	Not Regulated
<ul style="list-style-type: none"> <li>· <b>Air transport ICAO-TI and IATA-DGR:</b></li> <li>· <b>ICAO/IATA Class:</b> -</li> <li>· <b>Remarks:</b></li> </ul>	<p>Not Regulated</p> <p>Quantities less than 100 lb are not regulated for air shipment.</p> <p>For quantities greater than 100 lb, the air shipment classification is: UN3082 Environmentally hazardous substances, liquid, n.o.s. (dibutyl phthalate) Class = 9 Packing Group III Label = 9</p>

## \* 15 Regulatory information

- **Sara**

<ul style="list-style-type: none"> <li>· <b>Section 302 (extremely hazardous substances):</b></li> </ul>		
None of the ingredients is listed.		
<ul style="list-style-type: none"> <li>· <b>Section 313 (Specific toxic chemical listings):</b></li> </ul>		
84-74-2	dibutyl phthalate	10-20%
<ul style="list-style-type: none"> <li>· <b>Sections 311/312 (Specific hazard chemical listings):</b></li> </ul>		
84-74-2	dibutyl phthalate	
<ul style="list-style-type: none"> <li>· <b>Sections 311/312 Hazard Categorizations:</b></li> </ul>		
84-74-2	dibutyl phthalate	Category = C (Chronic health hazard) 10-20%

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<b>· TSCA (Toxic Substances Control Act):</b>		
All ingredients are listed.		
<b>· Proposition 65</b>		
<b>· Chemicals known to cause cancer:</b>		
None of the ingredients is listed.		
<b>· Chemicals known to cause reproductive toxicity for females:</b>		
None of the ingredients is listed.		
<b>· Chemicals known to cause reproductive toxicity for males:</b>		
None of the ingredients is listed.		
<b>· Chemicals known to cause developmental toxicity:</b>		
None of the ingredients is listed.		
<b>· Carcinogenic categories</b>		
<b>· EPA (Environmental Protection Agency)</b>		
84-74-2	dibutyl phthalate	D
<b>· IARC (International Agency for Research on Cancer)</b>		
7631-86-9	silicon dioxide, chemically prepared	3 1-3%
<b>· NTP (National Toxicology Program)</b>		
None of the ingredients is listed.		
<b>· TLV (Threshold Limit Value established by ACGIH)</b>		
1344-28-1	aluminum oxide	A4 >60%
<b>· MAK (German Maximum Workplace Concentration)</b>		
1344-28-1	aluminum oxide	2 >60%
<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
None of the ingredients is listed.		
<b>· OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
None of the ingredients is listed.		

**· National regulations:****· Other regulations, limitations and prohibitive regulations****· Please note:**

This material contains dibutyl phthalate which is listed as a hazardous material according to CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980; 40 CFR 302.4). This material has a Reportable Quantity (RQ) of 100 lb (for dibutyl phthalate).

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**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.

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- **Relevant phrases**
  - R36/37 Irritating to eyes and respiratory system.
  - R36/37/38 Irritating to eyes, respiratory system and skin.
  - R36/38 Irritating to eyes and skin.
  - R43 May cause sensitisation by skin contact.
  - R50 Very toxic to aquatic organisms.
  - R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R61 May cause harm to the unborn child.
  - R62 Possible risk of impaired fertility.
- **Department issuing MSDS:** Technical department
- **Contact:** Dr. John F. Plummer
- **\* Data compared to the previous version altered.**

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

### · Product identifier

· Trade name: **Mereco XLN-589 Activator**

· Application of the substance / the preparation  
Epoxy curing agent

### · Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Mereco Division  
Metachem Resins Corporation  
1505 Main Street  
West Warwick, RI 02893  
USA Phone +1 / 401 / 822-9300

· Information department: Technical department.  
email = [info@mereco.com](mailto:info@mereco.com)

· Emergency telephone number: Telephone: (800) 424-9300 (Chemtrec)  
Call this number in the event of an accident resulting in a spill, leak or fire. Call this number in the event of exposure to the chemicals.

## \* 2 Composition/information on ingredients

### · Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with non-hazardous additions.

· Components:	
Mineral filler	Xi R36/37/38
aliphatic polyamine	C R34; Xn R21/22-48/20-65
Solvent	Xn R20/22; Xi R36/38-43
aliphatic amine	C R34; Xn R21/22; Xi R43 R52/53
aliphatic amine	C R34; Xn R22; Xi R43 R53
Additive	C R34; Xn R22-62-63; N R50/53 Repr. Cat. 3
inorganic filler	Xi R36/37

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

This material is a blend of liquid curing agents and mineral or ceramic powders. The powders do not pose airborne hazards to the user of this formulated product because they are completely encapsulated in the liquid materials. If any of the specific powdered ingredients are hazardous in accordance with Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) they are identified in Section 15 of the MSDS (SARA

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Section 313).

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**\* 3 Hazards identification**

- **Classification of the substance or mixture**

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

C; Corrosive

R34: Causes burns.

Xn; Harmful

R22-48/20: Harmful if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xi; Irritant

R37-43: Irritating to respiratory system. May cause sensitisation by skin contact.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of international guidelines.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

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- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

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

C Corrosive

N Dangerous for the environment

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

polyoxypropylene diamine

Benzyl alcohol

3-aminomethyl-3,5,5-trimethylcyclohexylamine

trimethylhexane-1,6-diamine

- **Risk phrases:**

22 Harmful if swallowed.

34 Causes burns.

37 Irritating to respiratory system.

43 May cause sensitisation by skin contact.

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48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

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

**· Safety phrases:**

- 1/2 Keep locked up and out of the reach of children.
- 13 Keep away from food, drink and animal feedingstuffs.
- 20 When using do not eat or drink.
- 25 Avoid contact with 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.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- 56 Dispose of this material and its container to hazardous or special waste collection point.
- 60 This material and its container must be disposed of as hazardous waste.
- 64 If swallowed, rinse mouth with water (only if the person is conscious).

**· Classification system:**

**· NFPA ratings (scale 0 - 4)**

Health = 3  
Fire = 1  
Reactivity = 0

**· HMIS-ratings (scale 0 - 4)**

Health = 3  
Fire = 1  
Reactivity = 0

## 4 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 is necessary for at least 48 hours after the accident.

**· After inhalation:**

Supply fresh air. For added safety, call a doctor. In case of unconsciousness place patient in a stable 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. Then consult a doctor.

**· After swallowing:**

Immediately call a doctor.

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Drink copious amounts of water and provide fresh air. Immediately call a doctor.

## \* 5 Firefighting measures

- **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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:** Use neutralizing agent.  
Dispose of contaminated material as waste according to item 13.  
Pick up mechanically.  
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.

## \* 7 Handling and storage

- **Handling:**
  - **Precautions for safe handling** Thorough dedusting.  
Store in cool, dry place in tightly closed receptacles.  
Use only in well ventilated areas.
  - **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.

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- **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** Keep receptacle tightly sealed.
  - **Specific end use(s)** No further relevant information available.
- 

## 8 Exposure controls/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:

1344-28-1 aluminum oxide	
PEL	15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL	Short-term value: 1.5* mg/m <sup>3</sup> *as respirable fraction
TLV	1* mg/m <sup>3</sup> *as respirable fraction
100-51-6 Benzyl alcohol	
WEEL	44 mg/m <sup>3</sup> , 10 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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. Avoid contact with the eyes and skin.
  - **Breathing equipment:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
  - **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 is based on consideration of the penetration times, rates of diffusion and the degradation of the material.

### · Material of gloves

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The selection of suitable gloves depends not only 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 penetration time has to be determined by the glove manufacturer and has to be observed.

· **Eye protection:**

Tightly sealed goggles

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## \* 9 Physical and chemical properties

· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Pasty
· <b>Color:</b>	Gray
· <b>Odor:</b>	Ammonia-like
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not applicable.
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	260°C
· <b>Flash point:</b>	101°C
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20°C:</b>	
· <b>Relative density</b>	2.2 g/cm <sup>3</sup>
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not applicable.

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<ul style="list-style-type: none"> <li>· <b>Solubility in / Miscibility with</b></li> <li>· <b>Water:</b> Insoluble.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Segregation coefficient (n-octanol/water):</b> Not determined.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Viscosity:</b></li> <li>· <b>Dynamic:</b> Not applicable.</li> <li>· <b>Kinematic:</b> Not applicable.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Solvent content:</b></li> <li>· <b>Organic solvents:</b> 3.9 %</li> <li>· <b>Other information</b> No further relevant information available.</li> </ul>

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## \* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **Possibility of hazardous reactions**
    - Reacts with acids.
    - Reacts with strong acids.
  - **Conditions to avoid** No further relevant information available.
  - **Incompatible materials:** No further relevant information available.
  - **Hazardous decomposition products:**
    - Nitrogen oxides
    - Irritant gases/vapors
- 

## 11 Toxicological information

- **Acute toxicity:**

<ul style="list-style-type: none"> <li>· <b>LD/LC50 values that are relevant for classification:</b></li> </ul>		
<b>100-51-6 Benzyl alcohol</b>		
Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
<b>2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine</b>		
Oral	LD50	1030 mg/kg (rat)
Dermal	LD50	2.2 mg/kg (rabbit)
<b>25620-58-0 trimethylhexane-1,6-diamine</b>		
Oral	LD50	900 mg/kg (rat)
<b>84852-15-3 4-nonylphenol, branched</b>		
Oral	LD50	580 mg/kg (rat)
Dermal	LD50	2140 mg/kg (rabbit)

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**7631-86-9 silicon dioxide, chemically prepared**

Oral	LD50	10000 mg/kg (rat)
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- **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 internally approved calculation methods for preparations:

Harmful  
Corrosive  
Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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**\* 12 Ecological information**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
- **Ecotoxicological effects:**
  - **Remark:** Toxic for fish
- **Additional ecological information:**
  - **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms

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**13 Disposal considerations**

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

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## \* 14 Transport information

<ul style="list-style-type: none"> <li>· <b>DOT regulations:</b></li> <li>· <b>Hazard class:</b> 8</li> <li>· <b>Identification number:</b> UN3259</li> <li>· <b>Packing group:</b> III</li> <li>· <b>Proper shipping name (technical name):</b> AMINES, SOLID, CORROSIVE, N.O.S. (POLYOXYPROPYLENE DIAMINE, 4-NONYLPHENOL, BRANCHED)</li> <li>· <b>Label:</b> 8</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Land transport ADR/RID (cross-border):</b></li> <li>· <b>ADR/RID class:</b> 8 (C8) Corrosive substances</li> <li>· <b>Danger code (Kemler):</b> 80</li> <li>· <b>UN-Number:</b> 3259</li> <li>· <b>Packaging group:</b> III</li> <li>· <b>UN proper shipping name:</b> 3259 AMINES, SOLID, CORROSIVE, N.O.S. (POLYOXYPROPYLENE DIAMINE, 4-NONYLPHENOL, BRANCHED), ENVIRONMENTALLY HAZARDOUS</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Maritime transport IMDG:</b></li> <li>· <b>IMDG Class:</b> 8</li> <li>· <b>UN Number:</b> 3259</li> <li>· <b>Label:</b> 8</li> <li>· <b>Packaging group:</b> III</li> <li>· <b>EMS Number:</b> F-A,S-B</li> <li>· <b>Marine pollutant:</b> No</li> <li>· <b>Segregation groups:</b> Alkalis</li> <li>· <b>Proper shipping name:</b> AMINES, SOLID, CORROSIVE, N.O.S. (POLYOXYPROPYLENE DIAMINE, 4-NONYLPHENOL, BRANCHED)</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Air transport ICAO-TI and IATA-DGR:</b></li> <li>· <b>ICAO/IATA Class:</b> 8</li> <li>· <b>UN/ID Number:</b> 3259</li> <li>· <b>Label:</b> 8</li> <li>· <b>Packaging group:</b> III</li> <li>· <b>Proper shipping name:</b> AMINES, SOLID, CORROSIVE, N.O.S. (POLYOXYPROPYLENE DIAMINE, 4-NONYLPHENOL, BRANCHED)</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b> Product contains environmentally hazardous substances: 4-NONYLPHENOL, BRANCHED</li> </ul>

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## \* 15 Regulatory information

### · Sara

· <b>Section 302 (extremely hazardous substances):</b>			
None of the ingredients is listed.			
· <b>Section 313 (Specific toxic chemical listings):</b>			
None of the ingredients is listed by CAS number.			
· <b>Sections 311/312 (Specific hazard chemical listings):</b>			
9046-10-0	polyoxypropylene diamine		
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine		
25620-58-0	trimethylhexane-1,6-diamine		
84852-15-3	4-nonylphenol, branched		
· <b>Sections 311/312 Hazard Categorizations:</b>			
9046-10-0	polyoxypropylene diamine	Category = A (Acute health hazard)	10-20%
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	A = Acute health hazard	3-10%
25620-58-0	trimethylhexane-1,6-diamine	A = Acute health hazard	1-3%
84852-15-3	4-nonylphenol, branched	A = Acute health hazard	1-3%
· <b>TSCA (Toxic Substances Control Act):</b>			
All ingredients are listed.			
· <b>Proposition 65</b>			
· <b>Chemicals known to cause cancer:</b>			
None of the ingredients is listed.			
· <b>Chemicals known to cause reproductive toxicity for females:</b>			
None of the ingredients is listed.			
· <b>Chemicals known to cause reproductive toxicity for males:</b>			
None of the ingredients is listed.			
· <b>Chemicals known to cause developmental toxicity:</b>			
None of the ingredients is listed.			
· <b>Carcinogenic categories</b>			
· <b>EPA (Environmental Protection Agency)</b>			
None of the ingredients is listed.			
· <b>IARC (International Agency for Research on Cancer)</b>			
7631-86-9	silicon dioxide, chemically prepared	3	1-3%
· <b>NTP (National Toxicology Program)</b>			
None of the ingredients is listed.			

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<b>· TLV (Threshold Limit Value established by ACGIH)</b>		
1344-28-1	aluminum oxide	A4 >60%
<b>· MAK (German Maximum Workplace Concentration)</b>		
1344-28-1	aluminum oxide	2 >60%
<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
None of the ingredients is listed.		
<b>· OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
None of the ingredients is listed.		

**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**
  - R20/22 Harmful by inhalation and if swallowed.
  - R21/22 Harmful in contact with skin and if swallowed.
  - R22 Harmful if swallowed.
  - R34 Causes burns.
  - R36/37 Irritating to eyes and respiratory system.
  - R36/37/38 Irritating to eyes, respiratory system and skin.
  - R36/38 Irritating to eyes and skin.
  - R43 May cause sensitisation by skin contact.
  - R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
  - R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R53 May cause long-term adverse effects in the aquatic environment.
  - R62 Possible risk of impaired fertility.
  - R63 Possible risk of harm to the unborn child.
  - R65 Harmful: may cause lung damage if swallowed.
- Department issuing MSDS:** Technical department
- Contact:** Dr. John F. Plummer
- \* Data compared to the previous version altered.**