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SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

|--|

CAS: 1310-58-3 potassium hydroxide 25-5 EINECS: 215-181-3 C R35; Xn R22 Skin Corr. 1A, H314; Acute Tox. 4, H302 CAS: 111-46-6 2.2'-oxybisethanol 10-2	
EINECS: 215-181-3 C R35; Xn R22 Skin Corr. 1A, H314; Acute Tox. 4, H302 CAS: 111-46-6 2.2'-oxybisethanol 10-2	0%
CAS: 111-46-6 2.2'-oxybisethanol 10-2	
	25%
EINECS: 203-872-2 Xn R22	
Reg.nr.: 01-2119457857-21 STOT RE 2, H373 Acute Tox. 4, H302	
CAS: 122-99-6 2-Phenoxyethanol 2,5-	10%
EINECS: 204-589-7 Xn R22; Xn R36	
Reg.nr.: 01-2119488943-21	

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

SECTION 4: First aid measures

· 4.1 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

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accident.

· After inhalation: 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:

Remove contactlenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Do not induce vomiting; call for medical help immediately.

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

· 4.2 Most important symptoms and effects, both acute and delayed Headache

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

• Suitable extinguishing agents: CO2 or powder. Fight larger fights with alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents:

Water with full jet

Water

· 5.2 Special hazards arising from the substance or mixture Carbon monoxide (CO)

• 5.3 Advice for firefighters

· Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 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.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Handle with care. Avoid jolting, friction and impact.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about fire and explosion protection: No special measures required.
- · 7.2 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: Do not store together with oxidising and acidic materials.
 Further information about storage conditions:

Protect from frost.

Keep container tightly sealed.

Storage class: 8 A

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

· 8.1 Control parameters

· 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.

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· DNELs 1310-58-3 potassium hydroxide

Inhalative Long-term exposure - local effects 1 mg/m3 (worker)

111-46-6 2,2'-oxybisethanol

Dermal Long-term exposure - systemic effects 106 mg/kg bw/day (worker) Inhalative Long-term exposure - local effects 60 mg/m3 (worker)

· PNECs

111-46-6 2,2'-oxybisethanol

PNEC 199,5 mg/l (STP) 10 mg/l (aqua, freshwater) 10 mg/l (aqua, intermittent releases) 1 mg/l (aqua, marine water) 20,9 mg/kg (sediment freshwater) • Additional information: The lists valid during the making were used as basis.

8.2 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.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection:

Suitable respiratory protective device recommended.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use selfcontained respiratory protective device.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product.

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

· Material of gloves

Neoprene 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

Thickness of the gloves ³ 1 mm (potassiumhydroxide)

Value for the permeation: Level ³ 480 min (potassiumhydroxide)

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

· Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

 General Information 		
 Appearance: 		
Form:	Fluid	
Colour:	Colourle	ess
· Odour:	Charact	eristic
 pH-value at 20 °C: 		15
Change in condition		
Boiling point/Boiling rar	nge:	100 °C

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 Flash point: 	96 °C			
Flammability (solid, gaseous): Not applicable.				
 Ignition temperature: 	190 °C			
 Self-igniting: 	Product is not selfigniting.			
 Danger of explosion: 	Product does not present an explosion hazard.			
Explosion limits:				
Lower:	0,7 Vol %			
Upper:	22,0 Vol %			
· Vapour pressure at 20 °C:	23 hPa			
Density at 20 °C:	1,28 g/cm ³			
Solubility in / Miscibility with				
water:	Slightly soluble.			
· Viscosity:				
Dynamic at 20 °C:	± 1 mPas			
Kinematic:	Not determined.			
Solvent content:				
Organic solvents:	23,7 %			
VOC (EC)	23,72 %			
• 9.2 Other information No further relevant information available.				

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions Reacts with strong acids.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: Oxidizing agents.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values relevant for classification:

1310-58-3 potassium hydroxide

Oral LD50 273 mg/kg (rat)

111-46-6 2,2'-oxybisethanol

 Oral
 LD50
 12565 mg/kg (rat)

 Dermal
 LD50
 13330 mg/kg (rabbit)

Inhalative LC50/4h 4,4 mg/l (rat)

· Primary irritant effect:

· on the skin: Strong caustic effect on skin and mucous membranes.

· on the eye: Strong caustic effect.

· Sensitisation: No sensitising effects known.

· 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:

Harmful

Corrosive

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

SECTION 12: Ecological information

- 12.1 Toxicity
- · Aquatic toxicity:

111-46-6 2,2'-oxybisethanol

EC50/24h >10000 mg/l (daphnia magna)

LC50/96h 75200 mg/l (pimphales promelas)

· 12.2 Persistence and degradability The contained surfactants are easily biodegradable

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· 12.3 Bioaccumulative potential

111-46-6 2,2'-oxybisethanol

LogPow -1,98 (/)

· 12.4 Mobility in soil No further relevant information available.

· Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

· 12.5 Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

16 10 01* aqueous liquid wastes containing dangerous substances

· Uncleaned packaging:

• Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, ADN, IMDG, IATA UN3267

· 14.2 UN proper shipping name

· ADR/ADN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE)

· IMDG, IATA CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE)

14.3 Transport hazard class(es)

· ADR, ADN, IMDG, IATA



 Class 8 Corrosive substances. Label 8 14.4 Packing group · ADR, ADN, IMDG, IATA Ш · 14.5 Environmental hazards: · Marine pollutant: No 14.6 Special precautions for user Warning: Corrosive substances. · Danger code (Kemler): 80 · EMS Number: F-A,S-B · Segregation groups Alkalis · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: · ADR/ADN · Limited quantities (LQ) 1L · Transport category 2 · Tunnel restriction code Е · UN "Model Regulation": UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.(POTASSIUM HYDROXIDE), 8, II



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SECTION 15: Regulatory information

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

· Other regulations, limitations and prohibitive regulations

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.

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

SECTION 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

- Harmful if swallowed. H302
- H314 Causes severe skin burns and eye damage.
- H319 Causes serious eye irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.

R22 Harmful if swallowed.

R35 Causes severe burns.

R36 Irritating to eyes.

· Department issuing MSDS: Product safety department.

· Contact: JP Kremers

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation

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

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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) DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2