# SAFETY DATA SHEET Safety Data Sheet according to Reg. (EU) No 2015/830

#### Date: 10.01.2021

#### Product name: EKOPEL 2K Bathtub Coating (component A)

ZDP d.o.o. encourages and expects you to read and understand the entire SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

# SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### **1.1 Product identifier**

Product name: EKOPEL 2K Bathtub Coating (component A)

**1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses:** Bathtub coatings, Casting. For bathtub, shower tray surface refinishing

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

COMPANY IDENTIFICATION ZDP d.o.o. Zalog pri Cerkljah 149, 4207 Cerklje na Gorenjskem, Slovenia **Customer Information Number:** +49 162 528 28 09, info@ekopel2k.com

# **1.4 EMERGENCY TELEPHONE NUMBER**

+49 162 528 28 09

# SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008: Skin corrosion/irritation - Category 2 - H315 Serious eye damage/eye irritation - Category 2 - H319 Skin sensitisation - Category 1B - H317 Chronic aquatic toxicity - Category 2 - H411 For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: Hazard pictograms



# Hazard statements

- H319 Causes serious eye irritation.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H411 Toxic to aquatic life with long lasting effects.

#### **Precautionary statements**

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P273	Avoid release to the environment.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352 P391	IF ON SKIN: Wash with plenty of soap and water. Collect spillage.
P501	Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device.

#### SECTION 3. COMPOSITION/INFORMATION ON DANGEROUS INGREDIENTS

#### 3.1 Mixture

This product is a mixture

CASRN EC-NO	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
25068-38-6 500-033-5	50-60%	Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight <= 700)	Skin Irrit 2 - H315 Eye Irrit 2 - H319 Skin Sens 1 - H317 Aquatic Chronic - 2 - H411

# SECTION 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

**Skin contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if

irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. **Eye contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.

Ingestion: No emergency medical treatment necessary.

# **4.2 Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

# **4.3 Indication of any immediate medical attention and special treatment needed Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

# **SECTION 5. FIREFIGHTING MEASURES**

# 5.1 Extinguishing media

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment. **Unsuitable extinguishing media:** Do not use direct water stream. May spread fire.

# 5.2 Special hazards arising from the substance or mixture

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Phenolics. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is emitted when burned without sufficient oxygen.

# 5.3 Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet,

coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to section 7, Handling, for additional precautionary measures.

**6.2 Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**6.3 Methods and materials for containment and cleaning up:** Contain spilled material if possible. Absorb with materials such as: Sand. Polypropylene fiber products. Polyethylene fiber products. Remove residual with soap and hot water. Collect in suitable and properly labeled containers. Residual can be removed with solvent. Solvents are not recommended for clean-up unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent Safety Data Sheet for handling information and exposure guidelines. See Section 13, Disposal Considerations, for additional information.

**6.4 Reference to other sections:** References to other sections, if applicable, have been provided in the previous sub-sections.

# SECTION 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling:** Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause explosion and/or fire. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**7.2 Conditions for safe storage, including any incompatibilities:** Recommended pumping and storage temperature for bulk shipments is 60°C (140°F) Additional storage and handling information on this product may be obtained by calling your sales or customer service contact. Ask for a product brochure.

#### Storage stability

Storage temperature: 2 - 43 °C Shelf life: Use within, 24 Month

# SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits are listed below, if they exist.

Exposure limits have not been established for those substances listed in the composition, if any have been disclosed.

## 8.2 Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations. **Individual protection measures** 

Eye/face protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent.

#### **Skin protection**

**Hand protection:** Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Neoprene. Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

#### **Environmental exposure controls**

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties** Appearance

Physical state Color viscous Liquid. Colorless to yellow

Odor Odor Threshold pH Melting point/range Freezing point Boiling point (760 mmHg)	Odorless to mild No test data available No test data available Not applicable No test data available 320 °C Differential Scanning Calorimetry (DSC) Decomposition
Flash point	closed cup 264 - 268 °C at 102.89 hPa EC Method A9
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	No
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor Pressure	< 0.0000001 Pa EC Method A4
Relative Vapor Density (air = 1)	no data available
Relative Density (water = 1) Water	1.16 at 20 °C / 20 °C Literature
solubility	5.4 - 8.4 mg/l at 20 °C EU Method A.6 (Water Solubility)
Partition coefficient:	
n-octanol/water	log Pow: 3.242 Estimated.
Auto-ignition temperature	
Decomposition temperature	Not applicable
Dynamic Viscosity	No test data available
Kinematic Viscosity	11,000 - 14,000 mPa.s at 25 °C ASTM D 445
Explosive properties	No test data available
Oxidizing properties	No EEC A14
	No

#### 9.2 Other information

Liquid Density	1.16 g/cm3 at 25 °C ASTM D4052
Molecular weight	Not determined

NOTE: The physical data presented above are typical values and should not be construed as a specification.

#### SECTION 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** no data available

**10.2 Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7.

**10.3 Possibility of hazardous reactions:** Will not occur by itself. Masses of more than one pound

(0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

**10.4 Conditions to avoid:** Avoid short term exposures to temperatures above 300 °C Potentially violent decomposition can occur above 350 °C Avoid prolonged exposure to temperatures above 250 °C Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

**10.5 Incompatible materials:** Avoid contact with oxidizing materials. Avoid contact with: Acids. Bases. Avoid unintended contact with amines.

**10.6 Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.

## SECTION 11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

#### **11.1 Information on toxicological effects**

# Acute toxicity

#### Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

LD50, Rat, > 15,000 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rabbit, 23,000 mg/kg

#### Acute inhalation toxicity

At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material, mist or aerosols may cause respiratory irritation.

The LC50 has not been determined.

#### Skin corrosion/irritation

Prolonged contact may cause skin irritation with local redness.

Repeated contact may cause skin irritation with local redness.

#### Serious eye damage/eye irritation

May cause eye irritation.

Corneal injury is unlikely.

#### Sensitization

For similar material(s):

Has caused allergic skin reactions in humans.

Has demonstrated the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

#### Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

#### Specific Target Organ Systemic Toxicity (Repeated Exposure)

Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.

#### Carcinogenicity

Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEBPA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBPA is not classified as a carcinogen. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBPA is carcinogenic.

#### Teratogenicity

Resins based on the diglycidyl ether of bisphenol A (DGEBPA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

#### **Reproductive toxicity**

In animal studies, did not interfere with reproduction.

#### Mutagenicity

In vitro genetic toxicity studies were negative in some cases and positive in other cases.

Animal genetic toxicity studies were negative. Aspiration Hazard Based on physical properties, not likely to be an aspiration hazard. COMPONENTS INFLUENCING TOXICOLOGY: Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700) The LC50 has not been determined.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

#### 12.1 Toxicity

#### Acute toxicity to fish

Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, 2 mg/l

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, 1.8 mg/l

#### Acute toxicity to algae/aquatic plants

ErC50, Scenedesmus capricornutum (fresh water algae), static test, 72 Hour, Growth rate inhibition, 11 mg/l

#### Toxicity to bacteria

IC50, Bacteria, 18 Hour, Respiration rates., > 42.6 mg/l

Chronic aquatic toxicity

#### Chronic toxicity to aquatic invertebrates

MATC (Maximum Acceptable Toxicant Level), Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 0.55 mg/l

#### 12.2 Persistence and degradability

**Biodegradability:** Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

**10-day Window:** Not applicable **Biodegradation:** 12 % **Exposure time:** 28 d **Method:** OECD Test Guideline 302B or Equivalent

#### 12.3 Bioaccumulative potential

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 3.242 at 25 °C Estimated.

#### 12.4 Mobility in soil

Potential for mobility in soil is low (Koc between 500 and 2000). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process. **Partition coefficient(Koc):** 1800 - 4400 Estimated.

#### 12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

#### **12.6 Other adverse effects**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

# **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **13.1 Waste treatment methods**

This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

#### **SECTION 14. TRANSPORT INFORMATION**

Classification for ROAD and Rail transport (ADR/RID):

14.1 UN number 14.2 Proper shipping name	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Epoxy resin)
14.3 Class 14.4 Packing group 14.5 Environmental hazards	III Epoxy resin

#### Classification for SEA transport (IMO-IMDG):

14.1 UN number 14.2 Proper shipping name	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Epoxy resin) 9
14.3 Class 14.4 Packing group 14.5 Environmental hazards	III Epoxy resin

#### Classification for AIR transport (IATA/ICAO):

14.1 UN number 14.2 Proper shipping name	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Epoxy resin) 9
14.3 Class 14.4 Packing group 14.5 Environmental hazards	III Not applicable

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transportation of the material.

## **SECTION 15. REGULATORY INFORMATION**

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

#### REACh Regulation (EC) No 1907/2006

This product has been registered, according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

#### **15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has been carried out for this substance.

#### **SECTION 16. OTHER INFORMATION**

#### Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

#### Full text of R-phrases referred to under sections 2 and 3

R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
R51	Toxic to aquatic organisms.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.

# SAFETY DATA SHEET Safety Data Sheet according to Reg. (EU) No 2015/830

#### Date: 10.01.2021

#### Product name: EKOPEL 2K Bathtub Coating (component B)

ZDP d.o.o. encourages and expects you to read and understand the entire SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

# SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### **1.1 Product identifier**

Product name: EKOPEL 2K Bathtub Coating (component B)

**1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses:** Bathtub coatings, Casting. For bathtub, shower tray surface refinishing

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

COMPANY IDENTIFICATION ZDP d.o.o. Zalog pri Cerkljah 149, 4207 Cerklje na Gorenjskem, Slovenia **Customer Information Number:** +49 162 528 28 09, info@ekopel2k.com

# **1.4 EMERGENCY TELEPHONE NUMBER**

+49 162 528 28 09

# **SECTION 2. HAZARDS IDENTIFICATION**

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008: Acute toxicity - Category 4 -Oral - H302 Skin corrosion - Category 1B - H314 Skin sensitisation - Category 1 - H317 Chronic aquatic toxicity - Category 3 - H412 Classification according to EU Directives 67/548/EEC or 1999/45/EC: Corrosive - C - R34 Harmful - Xn - R20/21/22 Irritant - R43 R52/53

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: Hazard pictograms



#### Hazard statements

H302+312 Harmful if swallowed or in contact with skin.

H318 Causes serious eye damage. .

H411 Toxic to aquatic life with long lasting effects.

#### **Precautionary statements**

P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

P391 Collect spillage.

#### Contains

Propylidynetrimethanol, propoxylated, reaction products with ammonia

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Mixtures

This product is a mixture.

CASRN EC-NO	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
39423-51-3 500-105-6	90-100%	Propylidynetrimethanol, propoxylated, reaction products with ammonia	Skin Irrit 2 - H315 Eye Irrit 2 - H319 Skin Sens 1 - H317 Aquatic Chronic - 2 - H411

#### **SECTION 4. FIRST AID MEASURES**

#### 4.1 Description of first aid measures

General advice: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically. Get medical attention if symptoms occur.

Inhalation: If inhaled, remove to fresh air. Get medical attention if symptoms occur. Skin contact: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

Eye contact: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Ingestion: Keep respiratory tract clear. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

# 4.2 Most important symptoms and effects, both acute and delayed: None known.

#### **4.3 Indication of any immediate medical attention and special treatment needed** Treatment : Treat symptomatically.

# **SECTION 5. FIREFIGHTING MEASURES**

#### 5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: High volume water jet.

# 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon oxides

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

**Further information:** Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods: No data is available on the product itself.

# SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
6.2 Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities

**6.3 Methods and materials for containment and cleaning up:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections:** For disposal considerations see section 13., See Section 1 for emergency contact information., For personal protection see section 8.

# SECTION 7. HANDLING AND STORAGE

## 7.1 Precautions for safe handling:

**Advice on safe handling:** Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

**Hygiene measures:** When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

#### 7.2 Conditions for safe storage, including any incompatibilities:

**Requirements for storage areas and containers:** Keep container tightly closed in a dry and well-ventilate place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labelled containers.

Advice on common storage: For incompatible materials please refer to Section 10 of this SDS.

Further information on storage stability: Stable under normal conditions.

#### 7.3 Specific end use(s)

See Annex to the Safety data sheet for additional information in the Exposure Scenario(s).

# SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Exposure limits are listed below, if they exist.

#### 8.2 Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations. Individual protection measures

Eye/face protection: Eye wash bottle with pure water. Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.

Hand protection: Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US).

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

#### **9.1 Information on basic physical and chemical properties** Appearance

Physical state light yellow

# SECTION 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7.

**10.3 Possibility of hazardous reactions:** No hazards to be specially mentioned.

10.4 Conditions to avoid: None known.

10.5 Incompatible materials: Strong acids.

**10.6 Hazardous decomposition products:** carbon dioxide, carbon monoxide.

#### SECTION 11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

# 11.1 Information on toxicological effects Acute toxicity LD50 (Rat, female): 550 mg/kg Acute oral toxicity LD50 (Rat, female): 550 mg/kg. Method: OECD Test Guideline 425 Acute dermal toxicity LD50 (Rat, male and female): > 1 000 mg/kg\ Method: OECD Test Guideline 402 Acute inhalation toxicity No data available Skin corrosion/irritation Species: Rabbit Method: OECD Test Guideline 404 Result: Mild skin irritation

Species: reconstructed human epidermis (RhE) Method: OECD Test Guideline 431 Result: No skin irritation

#### Serious eye damage/eye irritation

Method: OECD Test Guideline 405

Result: Irreversible effects on the eye

#### Sensitization

Propylidynetrimethanol, propoxylated, reaction products with ammonia: Exposure routes: Skin. Species: Guinea pig Assessment: Did not cause sensitisation on laboratory animals. Method: OECD Test Guideline 406 Result: Did not cause sensitisation on laboratory animals.

#### Specific Target Organ Systemic Toxicity (Single Exposure)

No data available

#### Specific Target Organ Systemic Toxicity (Repeated Exposure)

No data available

#### Carcinogenicity

Based on information for component(s): Did not cause cancer in laboratory animals.

#### Teratogenicity

Contains component(s) which, in laboratory animals, have been toxic to the fetus only at doses toxic to the mother. Contains component(s) which did not cause birth defects in laboratory animals.

#### **Reproductive toxicity**

Test Type: Reproduction / Developmental Toxicity Screening. Test

Species: Rat, male and female Application Route: Dermal

Dose: 0, 10, 50, 100 mg/kg General Toxicity - Parent: No observed adverse effect level: > 100 mg/kg body weight General Toxicity F1: No observed adverse effect level: > 100 mg/kg body weight Method: OECD Test Guideline 421

Result: No effects on fertility and early embryonic development were detected. **Mutagenicity** Test Type: reverse mutation assay. Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative

# Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

# SECTION 12. ECOLOGICAL INFORMATION

# 12.1 Toxicity

**Toxicity to fish:** LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Test type: static test. Test substance: Fresh water. Method: OECD Test Guideline 203 GLP: yes.

**Toxicity to daphnia and other aquatic invertebrates:** EC50 (Daphnia magna (Water flea)): 13 mg/I Exposure time: 48 h Test Type: static test. Test substance: Fresh water Method: OECD Test Guideline 202 GLP: yes

**Toxicity to algae/aquatic plants:** ErC50 (Selenastrum capricornutum (green algae)): 4,4 mg/I Exposure time: 72 h Test Type: static test

Test substance: Fresh water. Method: OECD Test Guideline 201 GLP: yes

NOEC (Selenastrum capricornutum (green algae)): 1 mg/l Exposure time: 72 h Test Type: static test. Test substance: Fresh water Method: OECD Test Guideline 201 GLP: yes **Toxicity to microorganisms** EC50 (activated sludge): ca. 1 000 mg. Exposure time: 0,5 h.

Test Type: static test. Test substance: Fresh water Method: OECD Test Guideline 209 GLP: yes

# 12.2 Persistence and degradability

Biodegradability Test Type: aerobic Inoculum: activated sludge Result: Not readily biodegradable. Biodegradation: < 5 % Exposure time: 28 d Method: OECD Test Guideline 301F Stability in water Degradation half life (DT50): > 1 yr (25 °C) pH: 7,5 Method: OECD Test Guideline 111 Remarks: Fresh water

#### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: log Pow: -1,13 (20 - 25 °C), pH: 12,7 Method: Partition coefficient

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 12.6 Other adverse effects

Additional ecological information

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

# SECTION 13. DISPOSAL CONSIDERATIONS

#### **13.1 Waste treatment methods**

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of contents/ container to an approved waste disposal plant.

Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

#### **SECTION 14. TRANSPORT INFORMATION**

ΙΑΤΑ	
14.1 UN number 14.2 UN proper shipping name	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (TRIMETHYLOLPROPANE

<ul> <li>14.3 Transport hazard class(es)</li> <li>14.4 Packing group</li> <li>14.5 Environmentally hazardous</li> <li>14.6 Special precautions for user</li> </ul>	POLYOXYPROPYLENE TRIAMINE) 9 III Not considered environmentally hazardous based on available data. No data available.
IMDG 14.1 UN number 14.2 UN proper shipping name	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (TRIMETHYLOLPROPANE POLYOXYPROPYLENE TRIAMINE)
14.3 Transport hazard class(es)	9
14.4 Packing group	
14.5 Environmental hazards	Not considered as marine pollutant based
14.6 Special precautions for user	EmS: F-A, S-B
ADR / RID	
14.1 UN number	UN 3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (TRIMETHYLOLPROPANE POLYOXYPROPYLENE TRIAMINE)
14.3 Transport hazard class(es)	9
14.4 Packing group	
14.5 Environmental hazards	Not considered environmentally hazardous
14.0 Openial preservitions for upon	based on available data.
14.6 Special precautions for user	Hazard Identification Number: 80

# 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

# SECTION 15. REGULATORY INFORMATION

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

# REACH Regulation (EC) No 1907/2006

This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

Seveso II - Directive 96/82/EC and its amendments:

Listed in Regulation: Directive 96/82/EC does not apply

# **15.2 Chemical Safety Assessment**

Chemical Safety Assessments have been carried out for these substances.

# **SECTION 16. OTHER INFORMATION**

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE. IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.