

## Safety Data Sheet

### MAPEWRAP 21 comp.A

Safety Data Sheet dated: 23/01/2025 - version 6



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

### 1.1. Product identifier

Mixture identification:

Trade name: MAPEWRAP 21 comp.A

Trade code: 9073220

UFI: UKR4-000X-500F-SWR4

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Epoxy resins

Uses advised against: Not available

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

Company: Mapei SK sro

Nádražná 39, Ivanka pri Dunaji, Slovakia

Tel: +421-2-4020 4511 - Fax: +421-2-2091-0846

Responsible: office@mapei.sk - sicurezza@mapei.it

### 1.4. Emergency telephone number

Tel: +421 2 5477 4166

## SECTION 2: Hazards identification



### 2.1. Classification of the substance or mixture

#### Regulation (EC) n. 1272/2008 (CLP)

Skin Irrit. 2 Causes skin irritation.

Eye Irrit. 2 Causes serious eye irritation.

Skin Sens. 1 May cause an allergic skin reaction.

Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

#### Regulation (EC) No 1272/2008 (CLP):

#### Hazard pictograms and Signal Word



Warning

#### Hazard statements

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.

#### Precautionary statements

P261 Avoid breathing mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P391 Collect spillage.

#### Special Provisions:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

#### Contains

bis-[4-(2,3-epoxipropoxy)phenyl]propane

Formaldehyde, oligomeric reaction products  
with 1-chloro-2,3-epoxypropane and phenol

1,6-Hexanediol Diglycidyl Ether

### Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

### 2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$

Other Hazards: No other hazards

This preparation contains low molecular weight epoxy resins. Cross sensitisation to other epoxies is possible. Avoid also exposure to spray mist and vapour.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not Relevant

### 3.2. Mixtures

Mixture identification: MAPEWRAP 21 comp.A

### Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
$\geq 50 - < 75\%$	bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS:1675-54-3, 25085-99-8 EC:216-823-5 Index:603-073-00-2	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411  Specific Concentration Limits: C $\geq 5\%$ : Skin Irrit. 2 H315 C $\geq 5\%$ : Eye Irrit. 2 H319	01-2119456619-26-XXXX
$\geq 10 - < 20\%$	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS:9003-36-5 EC:701-263-0	Skin Irrit. 2, H315; Aquatic Chronic 2, H411; Skin Sens. 1, H317	01-2119454392-40-XXXX
$\geq 0.1 - < 0.25\%$	1,6-Hexanediol Diglycidyl Ether	CAS:933999-84-9, 16096-31-4 EC:618-939-5	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412; Repr. 1B, H360FD	01-2119463471-41-0005

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

### 4.2. Most important symptoms and effects, both acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

### 4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:  
(see paragraph 4.1)

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## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

Suitable extinguishing media:

- Water.
- Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

### **5.2. Special hazards arising from the substance or mixture**

- Do not inhale explosion and combustion gases.
- Burning produces heavy smoke.

### **5.3. Advice for firefighters**

- Use suitable breathing apparatus.
  - Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
  - Move undamaged containers from immediate hazard area if it can be done safely.
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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**For non emergency personnel:**

- Wear personal protection equipment.
- Remove persons to safety.
- See protective measures under point 7 and 8.

**For emergency responders:**

- Wear personal protection equipment.

### **6.2. Environmental precautions**

- Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
- Limit leakages with earth or sand.
- In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

### **6.3. Methods and material for containment and cleaning up**

- Suitable material for taking up: absorbing material, organic, sand
- Wash with plenty of water.
- Retain contaminated washing water and dispose it.

### **6.4. Reference to other sections**

- See also section 8 and 13
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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

- Avoid contact with skin and eyes, inhalation of vapours and mists.
- Don't use empty container before they have been cleaned.
- Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
- Contaminated clothing should be changed before entering eating areas.
- Do not eat or drink while working.
- See also section 8 for recommended protective equipment.

**Advice on general occupational hygiene:**

### **7.2. Conditions for safe storage, including any incompatibilities**

- Keep away from food, drink and feed.

Incompatible materials:

- None in particular.

Instructions as regards storage premises:

- Adequately ventilated premises.

### **7.3. Specific end use(s)**

Recommendation(s)

- None in particular

Industrial sector specific solutions:

- None in particular
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## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

### Predicted No Effect Concentration (PNEC) values

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol  
CAS: 9003-36-5

Exposure Route: Fresh Water; PNEC Limit: 0.003 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 0.294 mg/kg

Exposure Route: Marine water; PNEC Limit: 0.0003 mg/l

Exposure Route: Marine water sediments; PNEC Limit: 0.0294 mg/kg

Exposure Route: Soil; PNEC Limit: 0.237 mg/kg

1,6-Hexanediol Diglycidyl Ether  
CAS: 933999-84-9,  
16096-31-4

Exposure Route: Fresh Water; PNEC Limit: 0.0115 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 0.283 mg/kg

Exposure Route: Marine water; PNEC Limit: 0.00115 mg/l

Exposure Route: Marine water sediments; PNEC Limit: 0.0283 mg/kg

Exposure Route: Soil; PNEC Limit: 0.223 mg/kg

### Derived No Effect Level (DNEL) values

1,6-Hexanediol Diglycidyl Ether  
CAS: 933999-84-9,  
16096-31-4

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 2.8 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Industry: 4.9 mg/m<sup>3</sup>

## 8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; EN ISO 374:

Polychloroprene - CR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Nitrile rubber - NBR: thickness  $\geq 0,35\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Butyl rubber - IIR: thickness  $\geq 0,5\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Fluorinated rubber - FKM: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to appropriate EN standards, like EN 136, 140, 143, 149, 14387 for information on selection and use of appropriate respiratory protection equipment.

In case of insufficient ventilation use mask with ABEKP filters (EN 14387).

Hygienic and Technical measures

Not available

Appropriate engineering controls:

Not available

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: liquid

Colour: Yellow

Odour: Characteristic

Odour threshold: Not available

Melting point/freezing point: Not available

Boiling point or initial boiling point and boiling range: Not available

Flammability: N.A.  
Lower and upper explosion limit: Lower and upper explosion limit: Not available  
Flash point: 100 °C (212 °F)  
Auto-ignition temperature: Not available  
Decomposition temperature: Not available  
pH: Not available  
Viscosity: 500.00 cPs  
Kinematic viscosity: Not available  
Solubility in water: Insoluble  
Solubility in oil: soluble  
Partition coefficient n-octanol/water (log value): Not available  
Vapour pressure: Not available  
Density and/or relative density: 1.12 g/cm<sup>3</sup>  
Relative vapour density: Not available

**Particle characteristics:**

Particle size: Not available

**9.2. Other information**

Miscibility: Not available  
Conductivity: Not available  
Explosive properties: ==  
Solid/gas flammability: ==  
No other relevant information

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**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Stable under normal conditions

**10.2. Chemical stability**

Stable under normal conditions

**10.3. Possibility of hazardous reactions**

None.

**10.4. Conditions to avoid**

Stable under normal conditions.

**10.5. Incompatible materials**

None in particular.

**10.6. Hazardous decomposition products**

None.

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**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Toxicological Information of the Preparation**

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1(H317)
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

**Toxicological information on main components of the mixture:**

bis-[4-(2,3-epoxipropoxy)phenyl]propane a) acute toxicity LD50 Skin Rabbit = 20 mg/kg

LD50 Oral Rat = 11300 µL/kg

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol a) acute toxicity LD50 Oral Rat > 5000 mg/kg

i) STOT-repeated exposure LD50 Skin Rat > 2000 mg/kg  
NOAEL Oral = 250 mg/kg

1,6-Hexanediol Diglycidyl Ether a) acute toxicity LD50 Oral Rat = 2190 mg/kg

i) STOT-repeated exposure LD50 Skin Rabbit > 4900 mg/kg  
NOAEL Oral = 200 mg/kg

NOAEL Inhalation = 16 mg/m<sup>3</sup>

## 11.2. Information on other hazards

### Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

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## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

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

#### List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 2(H411)

#### List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS: 1675-54-3, 25085-99-8 - EINECS: 216-823-5 - INDEX: 603-073-00-2	a) Aquatic acute toxicity : LC50 Fish = 2 mg/L 96h
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS: 9003-36-5 - EINECS: 701-263-0	a) Aquatic acute toxicity : EC50 Daphnia = 1.8 mg/L 48h a) Aquatic acute toxicity : LC50 Fish = 5.7 mg/L 96h
1,6-Hexanediol Diglycidyl Ether	CAS: 933999-84-9, 16096-31-4 - EINECS: 618-939-5	a) Aquatic acute toxicity : EC50 Daphnia = 2.55 mg/L 48h a) Aquatic acute toxicity : EC50 Algae = 1.8 mg/L 72h a) Aquatic acute toxicity : EC50 Daphnia = 47 mg/L 48h
		a) Aquatic acute toxicity : LC50 Fish = 30 mg/L 96 a) Aquatic acute toxicity : EC50 Algae = 23.1 mg/L 48 a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 30 mg/L 96h ECHA

### 12.2. Persistence and degradability

N.A.

### 12.3. Bioaccumulative potential

N.A.

#### 12.4. Mobility in soil

N.A.

#### 12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$

#### 12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

#### 12.7. Other adverse effects

Not available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Hazardous waste: Yes

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

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### SECTION 14: Transport information

#### 14.1. UN number or ID number

3082

#### 14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

#### 14.3. Transport hazard class(es)

ADR-Class: 9

IATA-Class: 9

IMDG-Class: 9

#### 14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

#### 14.5. Environmental hazards

Most important toxic component: epoxy resins

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-A, S-F

#### 14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR exempt: No

ADR-Label: 9

ADR-Hazard identification number: 90

ADR-Special Provisions: 274 335 375 601

ADR-Transport category (Tunnel restriction code): 3 (-)

ADR-Limited Quantity threshold: 5 L

Air (IATA):

IATA-Passenger Aircraft: 964

IATA-Cargo Aircraft: 964

IATA-Label: 9

IATA-Subsidiary hazards: -

IATA-Erg: 9L

IATA-Special Provisions: A97 A158 A197

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 274 335 969

IMDG-EMS: F-A, S-F

#### 14.7. Maritime transport in bulk according to IMO instruments

Not Applicable

These substances, when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids, or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to provisions of ADR, IMDG and IATA DGR.

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## SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) n. 2020/878

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

<b>Seveso III category according to Annex 1, part 1</b>	<b>Lower-tier threshold (tonnes)</b>	<b>Upper-tier threshold (tonnes)</b>
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Product belongs to category: E2	200	500
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#### Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 75

#### SVHC Substances:

SVHC substances not present in a concentration  $\geq 0.1\%$  (w/w)

#### National regulations

Produktregisteret Norge: 614701

MAL-kode: 00-5; A:B (4:1)= 00-5 (1993)

#### German Water Hazard Class.

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out for the mixture.

**SECTION 16: Other information**

<b>Code</b>	<b>Description</b>
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

  

<b>Code</b>	<b>Hazard class and hazard category</b>	<b>Description</b>
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.7/1B	Repr. 1B	Reproductive toxicity, Category 1B
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

<b>Classification according to Regulation (EC) Nr. 1272/2008</b>	<b>Classification procedure</b>
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

If appropriate, specific provisions in relation to possible training for workers are mentioned in section 2. Any training related to safety in the workplace must in any case refer to a risk assessment that must be carried out by a company safety officer taking into account the specific operating and environmental conditions in which the products are used.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

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

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive  
DSD: Dangerous Substances Directive  
EC50: Half Maximal Effective Concentration  
ECHA: European Chemicals Agency  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ES: Exposure Scenario  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
IC50: half maximal inhibitory concentration  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
IRCCS: Scientific Institute for Research, Hospitalization and Health Care  
KAFH: KAFH  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LDLo: Leathal Dose Low  
N.A.: Not Applicable  
N/A: Not Applicable  
N/D: Not defined/ Not available  
NA: Not available  
NIOSH: National Institute for Occupational Safety and Health  
NOAEL: No Observed Adverse Effect Level  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, Bioaccumulative and Toxic  
PGK: Packaging Instruction  
PNEC: Predicted No Effect Concentration.  
PSG: Passengers  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
vPvB: Very Persistent, Very Bioaccumulative.  
WGK: German Water Hazard Class.

**Paragraphs modified from the previous revision:**

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