

## Safety Data Sheet

### PLANIGROUT 310 NA PART B

Safety Data Sheet dated: 10/26/2022 - version 1

Date of first edition: 10/26/2022



## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: PLANIGROUT 310 NA PART B

Trade code: 9004685

### Recommended use of the chemical and restrictions on use

Recommended use: Hardener for epoxy products

Restrictions on use: Not available

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive - 33442 - Deerfield Beach - FL - USA

Phone: 954-246-8888

Responsible: RDProductSafety@mapei.com

### Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

Flammable Liquids — Category 4

Acute toxicity (oral), Category 4

Skin corrosion, Category 1A

Serious eye damage, Category 1

Skin Sensitization, Category 1

Specific target organ toxicity following repeated exposure, Category 2

Chronic (long term) aquatic hazard, category 3

Combustible liquid.

Harmful if swallowed.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

Harmful to aquatic life with long lasting effects.

### Label elements

#### Hazard pictograms and Signal Word



Danger

### Hazard statements

H227 Combustible liquid.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

H412 Harmful to aquatic life with long lasting effects.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing must not be allowed out of the workplace.

|                |  |
|----------------|--|
| P273           | Avoid release to the environment.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P301+P312      | IF SWALLOWED: Call a POISON CENTER if you feel unwell.   |
| P301+P330+P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting.   |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.                              |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| 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.  |
| P314           | Get medical advice/attention if you feel unwell.   |
| P321           | Specific treatment (see supplementary instructions on this label).   |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P363           | Wash contaminated clothing before reuse.   |
| P370+P378      | In case of fire, use a dry powder fire extinguisher to extinguish.   |
| P403+P235      | Store in a well-ventilated place. Keep cool.   |
| P405           | Store locked up.   |
| P501           | Dispose of contents/container in accordance with applicable regulations.   |

**Ingredient(s) with unknown acute toxicity:**

None

**Hazards not otherwise classified identified during the classification process:**

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances**

Not Relevant

**Mixtures**

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

**List of components**

| Concentra<br>tion (%)<br>w/w) | Name  | Ident. Numb.                                       | Classification   | Registration Number |
|-------------------------------|---|--|--|---------------------|
| 25-50 %                       |   | CAS:68953-36-6<br>EC:273-201-6                     | Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1, H317  |                     |
| 10-20 %                       | 1,4-bis(aminocyclohexyl)methane;<br>4,4'-Methylenedicyclohexanamine | CAS:1761-71-3<br>EC:217-168-8                      | Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1, H317; STOT RE 2, H373                                       |                     |
| 10-20 %                       | benzyl alcohol; benzenemethanol                                     | CAS:100-51-6<br>EC:202-859-9<br>Index:603-057-00-5 | Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2A, H319  |                     |
| 10-20 %                       | 1,2-diaminocyclohexane;<br>Cyclohex-1,2-ylenediamine                | CAS:694-83-7<br>EC:211-776-7                       | Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Dam. 1, H318; STOT SE 3, H335; Skin Corr. 1A, H314 |                     |
| 5-10 %                        | tetraethylenepentamine; 3,6,9-triazaundecamethylenediamine          | CAS:112-57-2<br>EC:203-986-2<br>Index:612-060-00-0 | Skin Sens. 1, H317; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314           |                     |

**4. FIRST AID MEASURES**

**Description of first aid measures**

In case of skin contact:

- Immediately take off all contaminated clothing.
- OBTAIN IMMEDIATE MEDICAL ATTENTION.
- Obtain medical attention if skin related symptoms persist.
- 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:

Give nothing to eat or drink.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

**Most important symptoms/effects, acute and delayed**

Eye irritation

Eye damages

Skin Irritation

Erythema

**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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## 5. FIRE-FIGHTING MEASURES

### Extinguishing media

Suitable extinguishing media:

### Unsuitable extinguishing media:

None in particular.

### Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not available

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

### Special protective equipment and precautions for fire-fighters

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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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

### Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

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## 7. HANDLING AND STORAGE

### Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.

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.

### Conditions for safe storage, including any incompatibilities

Store cool and dry.

Always keep in a well ventilated place.

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

Store in a well-ventilated place. Keep cool.

Avoid direct exposure to sunlight.

Opened containers must be carefully resealed and kept upright to prevent leakage.

Flammable mixtures may accumulate within the headspace of containers at room temperature.

Storage at higher temperatures requires an appropriate evaluation of preventive and protection measures to be adopted.

Storage temperature must be defined on the basis of a proper risk evaluation. Refer to other sections for additional information.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Storage temperature: Not available

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### List of components with OEL value

|   | OEL<br>Type | Country     | Long<br>Term<br>mg/m3 | Long<br>Term<br>ppm | Short<br>Term<br>mg/m3 | Short<br>Term<br>ppm | Note |
|---|-------------|-------------|-----------------------|---------------------|------------------------|----------------------|------|
| benzyl alcohol;<br>benzenemethanol<br>CAS: 100-51-6 | MAK         | GERMANY     | 22                    | 5                   |                        |                      |      |
|   | MAK         | SWITZERLAND | 22                    | 5                   |                        |                      |      |

Appropriate engineering controls: Not available

### Individual protection measures

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; 29 CFR 1910.138 - ANSI/ISEA 105:

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  $\geq 480\text{min}$ .

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: Liquid Amber

Odour: Like: Amines

Odour threshold: Not Relevant

pH: 11.00

Melting point / freezing point: Not Relevant

Initial boiling point and boiling range: 100 °C (212 °F)

Flash point: 70 °C (158 °F)

Evaporation rate: Not Relevant

Upper/lower flammability or explosive limits: Not Relevant

Vapour density: Not Relevant

Vapour pressure: Not Relevant

Relative density: 0.98 g/cm3

Solubility in water: partly soluble

Solubility in oil: Not Relevant

Partition coefficient (n-octanol/water): Not Relevant

Auto-ignition temperature: Not Relevant

Decomposition temperature: Not Relevant

Viscosity: Not Relevant

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

Solid/gas flammability: Not Relevant

#### Other information

Substance Groups relevant properties Not Relevant

Miscibility: Not Relevant

Fat Solubility: Not Relevant

Conductivity: Not Relevant

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## 10. STABILITY AND REACTIVITY

### Reactivity

Stable

### Chemical stability

Data not available.

### Possibility of hazardous reactions

It may generate flammable gases on contact with elementary metals (alkalis and alkaline earth) and powerful reducing agents.

It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents.

It may catch fire on contact with powerful oxidising agents.

### Conditions to avoid

Stable under normal conditions.

### Incompatible materials

None in particular.

### Hazardous decomposition products

None.

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## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicological information of the product:

|                                      |   |
|--------------------------------------|---|
| a) acute toxicity                    | The product is classified: Acute toxicity (oral), Category 4(H302)<br>ATEmix - Oral : 1433.91 mg/kg bw  |
| b) skin corrosion/irritation         | The product is classified: Skin corrosion, Category 1A(H314)  |
| c) serious eye damage/irritation     | The product is classified: Serious eye damage, Category 1(H318)   |
| d) respiratory or skin sensitisation | The product is classified: Skin Sensitization, Category 1(H317)   |
| e) germ cell mutagenicity            | Not classified<br>Based on available data, the classification criteria are not met                      |
| f) carcinogenicity                   | Not classified<br>Based on available data, the classification criteria are not met                      |
| g) reproductive toxicity             | Not classified<br>Based on available data, the classification criteria are not met                      |
| h) STOT-single exposure              | Not classified<br>Based on available data, the classification criteria are not met                      |
| i) STOT-repeated exposure            | The product is classified: Specific target organ toxicity following repeated exposure, Category 2(H373) |
| j) aspiration hazard                 | Not classified<br>Based on available data, the classification criteria are not met                      |

#### Toxicological information of the main substances found in the product:

|   |                   |   |
|---|-------------------|---|
| 1,4-bis(aminocyclohexyl) methane; 4,4'-Methylenedicyclohexanamine | a) acute toxicity | LD50 Oral Rat = 1000 mg/kg<br><br>LC50 Inhalation Mouse = 0.4 mg/l 4h   |
| benzyl alcohol; benzenemethanol                                   | a) acute toxicity | LD50 Skin Rabbit = 2000 mg/kg<br><br>LC50 Inhalation Rat = 8.8 mg/l 4h<br>LD50 Oral Rat = 1230 mg/kg<br>LD50 Skin Rabbit = 2 g/kg |

LD50 Oral Rat = 1230 mg/kg

1,2-diaminocyclohexane; a) acute toxicity  
Cyclohex-1,2-  
ylenediamine

LC50 Inhalation Rat > 3.23 mg/l 4h

LD50 Oral Rat = 4556 mg/kg

tetraethylenepentamine; a) acute toxicity  
3,6,9-  
triazaundecamethylenedia  
mine

LD50 Skin Rabbit = 660 µL/kg

LD50 Oral Rat = 2100 mg/kg

LD50 Skin Rabbit = 660 µL/kg

LD50 Oral Rat = 3990 mg/kg

**Substance(s) listed on the IARC Monographs:**

None

**Substance(s) listed as OSHA Carcinogen(s):**

None

**Substance(s) listed as NIOSH Carcinogen(s):**

None

**Substance(s) listed on the NTP report on Carcinogens:**

None

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**12. ECOLOGICAL INFORMATION**

**Toxicity**

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

Eco-Toxicological Information:

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

The product is classified: Chronic (long term) aquatic hazard, category 3(H412)

**List of components with eco-toxicological properties**

| Component  | Ident. Numb.  | Ecotox Infos   |
|--|---|--|
| benzyl alcohol; benzenemethanol                                | CAS: 100-51-6 -<br>EINECS: 202-<br>859-9 - INDEX:<br>603-057-00-5 | a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 460 mg/L 96h EPA                 |
|  |   | a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 10 mg/L 96h EPA                  |
| tetraethylenepentamine; 3,6,9-<br>triazaundecamethylenediamine | CAS: 112-57-2 -<br>EINECS: 203-<br>986-2 - INDEX:<br>612-060-00-0 | a) Aquatic acute toxicity : EC50 Daphnia water flea = 23 mg/L 48h                            |
|  |   | a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 420 mg/L 96h IUCLID              |
|  |   | a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 24.1 mg/L 48h IUCLID                |
|  |   | a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 2.1 mg/L 72h IUCLID |

**Persistence and degradability**

Not available

**Bioaccumulative potential**

Not available

**Mobility in soil**

Not available

**Other adverse effects**

Not available

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## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

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

#### 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.

#### 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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## 14. TRANSPORT INFORMATION

### UN number

DOT-UN Number: UN2735

ADR-UN number: 2735

IATA-Un number: 2735

IMDG-Un number: 2735

### UN proper shipping name

DOT-Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (polyamides - 4,4'-methylenebiscyclohexanamine)

ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (polyamides - 4,4'-methylenebiscyclohexanamine)

IATA-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (polyamides - 4,4'-methylenebiscyclohexanamine)

IMDG-Technical name: AMINES, LIQUID, CORROSIVE, N.O.S. (polyamides - 4,4'-methylenebiscyclohexanamine)

### Transport hazard class(es)

DOT-Hazard Class: 8

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

### Packing group

DOT-Packing group: II

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

### Environmental hazards

Marine pollutant: No

Environmental Pollutant: Not Applicable

DOT-RQ: Not Applicable

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable

### Special precautions

#### Department of Transportation (DOT):

DOT-Special Provision(s): B2, IB2, T11, TP1, TP27

DOT-Label(s): 8

DOT-Symbol: N/A

DOT-Cargo Aircraft: N/A

DOT-Passenger Aircraft: N/A

DOT-Bulk: N/A

DOT-Non-Bulk: N/A

#### Road and Rail (ADR-RID) :

ADR-Label: 8

ADR-Hazard identification number: 80

ADR-Transport category (Tunnel restriction code): 2 (E)

Air ( IATA ) :

IATA-Passenger Aircraft: 851

IATA-Cargo Aircraft: 855

IATA-Label: 8

IATA-Subsidiary hazards: -

IATA-Erg: 8L

IATA-Special Provisioning: A3 A803

Sea ( IMDG ) :

IMDG-Stowage Code: Category A

IMDG-Stowage Note: SG35 SGG18

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: 274

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-A, S-B

IMDG-MFAG: N/A

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## 15. REGULATORY INFORMATION

### USA - Federal regulations

#### TSCA - Toxic Substances Control Act

##### TSCA inventory:

All the components are listed on the TSCA inventory

##### TSCA listed substances:

is listed in TSCA Section 8b

1,4-bis(aminocyclohexyl)methane; is listed in TSCA Section 8b  
4,4'-Methylenedicyclohexanamine

benzyl alcohol; benzenemethanol is listed in TSCA Section 8b

1,2-diaminocyclohexane; is listed in TSCA Section 8b  
Cyclohex-1,2-ylenediamine

tetraethylenepentamine; 3,6,9- is listed in TSCA Section 8b  
trizaundecamethylenediamine

#### SARA - Superfund Amendments and Reauthorization Act

##### Section 302 - Extremely Hazardous Substances:

No substances listed

##### Section 304 - Hazardous substances:

No substances listed

##### Section 313 - Toxic chemical list:

No substances listed

#### CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

##### Substance(s) listed under CERCLA:

No substances listed

#### CAA - Clean Air Act

##### CAA listed substances:

benzyl alcohol; benzenemethanol is listed in CAA Section 112(b) - HON

tetraethylenepentamine; 3,6,9- is listed in CAA Section 112(b) - HON  
trizaundecamethylenediamine

#### CWA - Clean Water Act

##### CWA listed substances:

No substances listed

### USA - State specific regulations

#### California Proposition 65

##### Substance(s) listed under California Proposition 65:

No substances listed

#### Massachusetts Right to know



**Substance(s) listed under Massachusetts Right to know:**

benzyl alcohol; benzenemethanol

tetraethylenepentamine; 3,6,9-triazaundecamethylenediamine

**Pennsylvania Right to know****Substance(s) listed under Pennsylvania Right to know:**

benzyl alcohol; benzenemethanol

tetraethylenepentamine; 3,6,9-triazaundecamethylenediamine

**New Jersey Right to know****Substance(s) listed under New Jersey Right to know:**

tetraethylenepentamine; 3,6,9-triazaundecamethylenediamine

**Canada - Federal regulations****DSL - Domestic Substances List****DSL (Domestic Substances List)**

All the substances are listed in the DSL.

**NDSL - Non Domestic Substances List****NDSL (Non Domestic Substances List)**

No substances listed

**NPRI - National Pollutant Release Inventory****NPRI (National Pollutant Release Inventory) - List of substances listed.**

No substances listed

**16. OTHER INFORMATION**

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**Additional classification information**

NFPA Health: 3 = Serious

NFPA Flammability: 2 = Combustible liquid

NFPA Reactivity: 0 = Minimal

NFPA Special Risk: Not available



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

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.

| Code | Description  |
|------|--|
| H302 | Harmful if swallowed.  |
| H312 | Harmful in contact with skin.                                      |
| H314 | Causes severe skin burns and eye damage.                           |
| H317 | May cause an allergic skin reaction.                               |
| H318 | Causes serious eye damage.   |
| H319 | Causes serious eye irritation.                                     |
| H332 | Harmful if inhaled.  |
| H335 | May cause respiratory irritation.                                  |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects.                   |

| Code         | Hazard class and hazard category | Description                             |
|--------------|----------------------------------|---|
| A.1/4/Dermal | Acute Tox. 4                     | Acute toxicity (dermal), Category 4     |
| A.1/4/Inhal  | Acute Tox. 4                     | Acute toxicity (inhalation), Category 4 |
| A.1/4/Oral   | Acute Tox. 4                     | Acute toxicity (oral), Category 4       |
| A.2/1A       | Skin Corr. 1A                    | Skin corrosion, Category 1A             |
| A.2/1B       | Skin Corr. 1B                    | Skin corrosion, Category 1B             |
| A.2/1C       | Skin Corr. 1C                    | Skin corrosion, Category 1C             |
| A.3/1        | Eye Dam. 1                       | Serious eye damage, Category 1          |
| A.3/2A       | Eye Irrit. 2A                    | Eye irritation, Category 2A             |
| A.4.2/1      | Skin Sens. 1                     | Skin Sensitization, Category 1          |

|           |                   |  |
|-----------|-------------------|--|
| A.8/3     | STOT SE 3         | Specific target organ toxicity following single exposure, Category 3   |
| A.9/2     | STOT RE 2         | Specific target organ toxicity following repeated exposure, Category 2 |
| US-HAE/C2 | Aquatic Chronic 2 | Chronic (long term) aquatic hazard, category 2                         |

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

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
 IMDG: International Maritime Code for Dangerous Goods.  
 IATA: International Air Transport Association.  
 IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
 ICAO: International Civil Aviation Organization.  
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
 CLP: Classification, Labeling, Packaging.  
 EINECS: European Inventory of Existing Commercial Chemical Substances.  
 INCI: International Nomenclature of Cosmetic Ingredients.  
 CAS: Chemical Abstracts Service (division of the American Chemical Society).  
 GefStoffVO: Ordinance on Hazardous Substances, Germany.  
 LC50: Lethal concentration, for 50 percent of test population.  
 LD50: Lethal dose, for 50 percent of test population.  
 DNEL: Derived No Effect Level.  
 PNEC: Predicted No Effect Concentration.  
 TLV: Threshold Limiting Value.  
 TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
 STEL: Short Term Exposure limit.  
 STOT: Specific Target Organ Toxicity.  
 WGK: German Water Hazard Class.  
 KSt: Explosion coefficient.