

## Safety Data Sheet

# FLX-1001/ FLX-1002/ FLX-1003/ FLX-1004 cement

Version number: 2.0 Revision: 2020-09-30 First version: 2020-09-29 Replaces version of: 2020-09-29 (1)

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

#### 1.1 **Product identifier**

FLX-1001/ FLX-1002/ FLX-1003/ FLX-1004 - cement **Trade name** 

**Registration number (REACH)** Not relevant (mixture). **CAS** number not relevant (mixture)

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

Relevant identified uses Construction industry Hydraulic binders

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

FLUXANA® GmbH & Co. KG Telephone: +49 (0) 2821 - 48011-10 Borschelstraße 3 Telefax: +49 (0) 2821 - 48011-99

D-47551 Bedburg-Hau e-mail: info@fluxana.de Website: www.fluxana.de Germany

#### **Emergency telephone number** 1.4

As above or nearest toxicological information centre.

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

#### Classification Section **Hazard class Category** Hazard class and **Hazard state**category ment 3.2 skin corrosion/irritation 2 Skin Irrit. 2 H315 3.3 serious eye damage/eye irritation 1 Eye Dam. 1 H318 3.8R 3 STOT SE 3 H335 specific target organ toxicity - single exposure (respiratory tract irritation)

For full text of abbreviations: see SECTION 16

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word Danger

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#### **Pictograms**

#### **GHS05, GHS07**



#### **Hazard statements**

**H315** Causes skin irritation.

H318 Causes serious eye damage.H335 May cause respiratory irritation.

#### **Precautionary statements**

**P261** Avoid breathing dust.

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

**P302+P352** IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

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

**P342+P311** If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

**Hazardous ingredients for labelling** cement, portland, chemicals

flue dust, portland cement

#### 2.3 Other hazards

There is no additional information.

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### **Remarks**

The product contains chromate reducer, which results in a content of water-soluble chrome (VI) of less than 0.0002 %. In case of improper storage (moisture ingress) or storage exceeding the recommended storage time, however, the contained chromate reducer may lose its effect prematurely and a sensitising effect of the cement/binder can occur upon skin contact (H317 and EUH203). The preparation is low in chromium. The content of soluble chromium (VI) compounds has been

lowered with agent to below 2 ppm in the cement portion. Proper storage and compliance with the expiration date is a prerequisite for the effectiveness of the chromate reduction.

### **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not relevant (mixture).

#### 3.2 Mixtures

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#### **Description of the mixture**

| Hazardous ingredients            |  |         |   |            |  |  |
|----------------------------------|--|---------|---|------------|--|--|
| Name of substance                | Identifier   | Wt%     | Classification acc. to GHS  | Pictograms |  |  |
| cement, portland, chem-<br>icals | CAS No<br>65997-15-1<br>EC No<br>266-043-4   | ≥5      | Skin Irrit. 2 / H315<br>Eye Dam. 1 / H318<br>Skin Sens. 1B / H317<br>STOT SE 3 / H335 | <b>!</b>   |  |  |
| flue dust, portland ce-<br>ment  | CAS No<br>68475-76-3<br>EC No<br>270-659-9<br>REACH Reg. No<br>01-2119486767-17-<br>xxxx | 0.1 – 5 | Skin Irrit. 2 / H315<br>Eye Dam. 1 / H318<br>Skin Sens. 1 / H317<br>STOT SE 3 / H335  | <u> </u>   |  |  |

#### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

#### **General notes**

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

#### **Following inhalation**

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

#### Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

If skin irritation occurs: Get medical advice/attention.

## Following eye contact

Rinse cautiously with water for several minutes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### **Following ingestion**

Let water be drunken in little sips (dilution effect).

Rinse mouth. Do not induce vomiting.

Get medical advice/attention.

#### Notes for the doctor

None.

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

Cough, pain, choking, and breathing difficulties.

Irritating to skin.

Causes serious eye damage.

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

None.

## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings

## 5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

#### 5.3 Advice for firefighters

Non-combustible.

In case of fire and/or explosion do not breathe fumes.

Co-ordinate firefighting measures to the fire surroundings.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

#### Special protective equipment for firefighters

use suitable breathing apparatus

### **SECTION 6: Accidental release measures**

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

#### For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

Control of dust.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

#### For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

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## 6.3 Methods and material for containment and cleaning up

#### Advice on how to contain a spill

Take up mechanically.

#### Advice on how to clean up a spill

Take up mechanically.

Collect spillage.

Wet clean or vacuum up solids.

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

Ventilate affected area.

#### 6.4 Reference to other sections

Personal protective equipment: see section 8.

Incompatible materials: see section 10.

Disposal considerations: see section 13.

## **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

#### Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Removal of dust deposits.

Never add water to this product.

#### Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room.

#### Handling of incompatible substances or mixtures

#### **Keep away from**

oxidisers, acid, ammonium compounds, hydrogen fluoride (HF), light metals (e.g. aluminium and magnesium)

#### Measures to protect the environment

Avoid release to the environment.

#### Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Wash hands after use.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

Avoid contact with skin and eyes.

Do not breathe dust.

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

#### Flammability hazards

None.

#### **Incompatible substances or mixtures**

Incompatible materials: see section 10. Observe hints for combined storage.

### Protect against external exposure, such as

heat, humidity

#### **Consideration of other advice**

Keep away from food, drink and animal feeding stuffs.

#### **Ventilation requirements**

Provision of sufficient ventilation.

#### Specific designs for storage rooms or vessels

Keep container tightly closed and in a well-ventilated place. Store in a dry place.

#### Maximum storage period

90 d

## **Packaging compatibilities**

Keep only in original container.

## 7.3 Specific end use(s)

No information available.

#### **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

#### **Occupational exposure limit values (Workplace Exposure Limits)**

| Country | Name of agent   | Identifier | TWA [mg/m³] | Notation | Source    |
|---------|-----------------|------------|-------------|----------|-----------|
| GB      | dust            | WEL        | 10          | i        | EH40/2005 |
| GB      | dust            | WEL        | 4           | r        | EH40/2005 |
| GB      | portland cement | WEL        | 10          | i        | EH40/2005 |
| GB      | portland cement | WEL        | 4           | r        | EH40/2005 |

#### **Notation**

i inhalable fraction r respirable fraction

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of

8 hours time-weighted average (unless otherwise specified)

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| Relevant DNELs of components of the mixture |            |               |                    |  |                                       |                            |
|---|------------|---------------|--------------------|--|---------------------------------------|----------------------------|
| Name of sub-<br>stance                      | CAS No     | End-<br>point | Threshold<br>level | Protection goal,<br>route of expos-<br>ure | Used in                               | Exposure time              |
| flue dust, portland<br>cement               | 68475-76-3 | DNEL          | 0.84 mg/<br>m³     | human, inhalatory                          | worker (in-<br>dustry)                | chronic - local<br>effects |
| flue dust, portland<br>cement               | 68475-76-3 | DNEL          | 0.84 mg/<br>m³     | human, inhalatory                          | consumer<br>(private house-<br>holds) | chronic - local<br>effects |

## Relevant PNECs of components of the mixture

| Name of substance          | CAS No     | Endpoint | Threshold level                   | Environmental com-<br>partment  |
|----------------------------|------------|----------|-----------------------------------|---------------------------------|
| flue dust, portland cement | 68475-76-3 | PNEC     | 282 <sup>µg</sup> / <sub>l</sub>  | freshwater                      |
| flue dust, portland cement | 68475-76-3 | PNEC     | 28 <sup>µg</sup> / <sub>I</sub>   | marine water                    |
| flue dust, portland cement | 68475-76-3 | PNEC     | 6 <sup>mg</sup> / <sub>l</sub>    | sewage treatment plant<br>(STP) |
| flue dust, portland cement | 68475-76-3 | PNEC     | 875 <sup>µg</sup> / <sub>kg</sub> | freshwater sediment             |
| flue dust, portland cement | 68475-76-3 | PNEC     | 88 <sup>µg</sup> / <sub>kg</sub>  | marine sediment                 |
| flue dust, portland cement | 68475-76-3 | PNEC     | 5 <sup>mg</sup> / <sub>kg</sub>   | sediments                       |

## 8.2 Exposure controls

## **Appropriate engineering controls**

General ventilation.

Individual protection measures (personal protective equipment)

## **Eye/face protection**

Wear eye/face protection.

## **Hand protection**

## **Protective gloves**

| Material                            | Material thickness | Breakthrough times of the glove material |
|-------------------------------------|--------------------|--|
| NBR: acrylonitrile-butadiene rubber | ≥ 0,15 mm          | >480 minutes (permeation: level 6)       |

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Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

Particulate filter device (EN 143).

#### **Environmental exposure controls**

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

## **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

## **Appearance**

Physical state Solid

Form Powder

Colour Grey - White

Odour Odourless

Odour threshold These information are not available

Other safety parameters

pH (value) 11 – 13.5 (water: 2,000 <sup>g</sup>/<sub>l</sub>, 20 °C)

Melting point/freezing point >1,250 °C

Initial boiling point and boiling range

These information are not available

Flash point Not applicable

Evaporation rate These information are not available

Flammability (solid, gas) Non-combustible

Explosion limits of dust clouds Not determined

Vapour pressure These information are not available

Density  $2.75 - 3.2 \, {}^{9}/{}_{cm^3}$ 

Vapour density These information are not available

Bulk density  $0.9 - 1.5 \, {}^{9}/{}_{\text{cm}^3}$ 

Relative density These information are not available

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Solubility(ies)

Water solubility  $\leq 1.5 \, \text{g/}_{1}$  at 20 °C

Not miscible in any proportion

**Partition coefficient** 

n-octanol/water (log KOW)

These information are not available

Auto-ignition temperature Not relevant

(Solid matter)

Relative self-ignition temperature for solids

These information are not available

Decomposition temperature These information are not available

**Viscosity** 

Kinematic viscosity Not relevant

(Solid matter)

Dynamic viscosity Not relevant

(Solid matter)

Explosive properties Not explosive

Oxidising properties Shall not be classified as oxidising

#### 9.2 Other information

None

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

#### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

See below "Conditions to avoid".

#### 10.3 Possibility of hazardous reactions

In contact with water:

Strong exothermic reaction with acids.

Light metals (due to the release of hydrogen in an acid/alkaline medium).

#### 10.4 Conditions to avoid

Protect from moisture.

#### 10.5 Incompatible materials

acids, oxidisers, light metals (e.g. aluminium and magnesium), ammonium compounds, hydrogen fluoride (HF)

## 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

#### **Classification procedure**

If not otherwise specified the classification is based on:

Ingredients of the mixture (additivity formula).

## Classification according to GHS (1272/2008/EC, CLP)

#### **Acute toxicity**

## **Acute toxicity**

| Exposure route        | Endpoint Value |                                     | Species |
|-----------------------|----------------|-------------------------------------|---------|
| dermal                | LD0            | 2,000 <sup>mg</sup> / <sub>kg</sub> | rabbit  |
| inhalation: dust/mist | LD0            | 5 <sup>g</sup> / <sub>m³</sub> /4h  | rat     |

## Acute toxicity of components of the mixture

| Name of substance               | CAS No     | Expos-<br>ure<br>route        | End-<br>point | Value                                     | Species | Method                   | Source |
|---------------------------------|------------|-------------------------------|---------------|---|---------|--------------------------|--------|
| flue dust, portland ce-<br>ment | 68475-76-3 | oral                          | LD0           | >1,848<br><sup>mg</sup> / <sub>kg</sub>   | rat     | OECD<br>Guideline<br>422 | ЕСНА   |
| flue dust, portland ce-<br>ment | 68475-76-3 | dermal                        | LD0           | ≥2,000<br><sup>mg</sup> / <sub>kg</sub>   | rat     | OECD<br>Guideline<br>402 | ЕСНА   |
| flue dust, portland ce-<br>ment | 68475-76-3 | inhala-<br>tion:<br>dust/mist | LC50          | >6.04 <sup>mg</sup> /<br><sub>I</sub> /4h | rat     | OECD<br>Guideline<br>436 | ЕСНА   |

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye damage.

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#### Respiratory or skin sensitisation

#### Skin sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### **Respiratory sensitisation**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Germ cell mutagenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### Reproductive toxicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Specific target organ toxicity - single exposure

May cause respiratory irritation.

## Specific target organ toxicity - repeated exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

Cement develops an alkaline pH with moisture and can therefore be toxic to aquatic life under special circumstances.

#### **Aquatic toxicity (acute)**

Test data are not available for the complete mixture.

#### Aquatic toxicity (acute) of components of the mixture

| Name of sub-<br>stance          | CAS No     | Endpoint | Value                             | Species                                   | Method                   | Source | Expos-<br>ure<br>time |
|---------------------------------|------------|----------|-----------------------------------|---|--------------------------|--------|-----------------------|
| flue dust, port-<br>land cement | 68475-76-3 | ErC50    | 22.4 <sup>mg</sup> / <sub>l</sub> | algae (Desmod-<br>esmus sub-<br>spicatus) | OECD<br>Guideline<br>201 | ECHA   | 72 h                  |
| flue dust, port-<br>land cement | 68475-76-3 | ErC50    | 28.2 <sup>mg</sup> / <sub>l</sub> | algae (Desmod-<br>esmus sub-<br>spicatus) | OECD<br>Guideline<br>201 | ECHA   | 72 h                  |

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## **Aquatic toxicity (chronic)**

Test data are not available for the complete mixture.

#### Aquatic toxicity (chronic) of components of the mixture

| Name of sub-<br>stance          | CAS No     | Endpoint | Value                             | Species       | Method                   | Source | Expos-<br>ure<br>time |
|---------------------------------|------------|----------|-----------------------------------|---------------|--------------------------|--------|-----------------------|
| flue dust, port-<br>land cement | 68475-76-3 | EL10     | 68.2 <sup>mg</sup> / <sub>l</sub> | daphnia magna | OECD<br>Guideline<br>211 | ECHA   | 21 d                  |

#### 12.2 Persistence and degradability

#### **Biodegradation**

No data available.

#### **Persistence**

No data available.

## 12.3 Bioaccumulative potential

Test data are not available for the complete mixture.

#### 12.4 Mobility in soil

No data available.

#### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### 12.6 Other adverse effects

Data are not available.

#### **Remarks**

Wassergefährdungsklasse, WGK (water hazard class): 1

## **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

Completely emptied packages can be recycled.

Handle contaminated packages in the same way as the substance itself.

#### **Remarks**

Please consider the relevant national or regional provisions.

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# SECTION 14: Transport information 14.1 UN number Not subject to transport regulations

14.2 UN proper shipping name

14.3 Transport hazard class(es) -

14.4 Packing group -

14.5 Environmental hazards -

14.6 Special precautions for user -

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

## **SECTION 15: Regulatory information**

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

## Dangerous substances with restrictions (REACH, Annex XVII)

| Name of substance          | Name acc. to inventory | Restriction |
|----------------------------|------------------------|-------------|
| flue dust, portland cement | chromium(VI) compounds | R47         |

#### Legend

R47

- 1. Cement and cement-containing mixtures shall not be placed on the market, or used, if they contain, when hydrated, more than 2 mg/kg (0,0002 %) soluble chromium VI of the total dry weight of the cement.
- 2. If reducing agents are used, then without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1.
- 3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin.
- 4. The standard adopted by the European Committee for Standardization (CEN) for testing the water-soluble chromium (VI) content of cement and cement-containing mixtures shall be used as the test method for demonstrating conformity with paragraph 1.
- 5. Leather articles coming into contact with the skin shall not be placed on the market where they contain chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of the leather.
- 6. Articles containing leather parts coming into contact with the skin shall not be placed on the market where any of those leather parts contains chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of that leather part.
- 7. Paragraphs 5 and 6 shall not apply to the placing on the market of second-hand articles which were in enduse in the Union before 1 May 2015.

#### List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

None of the ingredients are listed.

#### **Seveso Directive**

Not assigned.

# Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

None of the ingredients are listed.

# Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

#### **Water Framework Directive (WFD)**

None of the ingredients are listed.

## Regulation 98/2013/EU on the marketing and use of explosives precursors

None of the ingredients are listed.

#### Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

#### Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

#### 15.2 Chemical Safety Assessment

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

## **SECTION 16: Other information**

## Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                  | Actual entry (text/value)                             |
|---------|--|---|
| 1.1     | Trade name:<br>FLX-1001/ FLX-1002 - cement | Trade name:<br>FLX-1001/ FLX-1002 /FLX-1003/ FLX-1004 |

#### **Abbreviations and acronyms**

| Abbr. | Descriptions of used abbreviations  |
|-------|---|
| ADN   | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR   | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| CAS   | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP   | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| DGR         | Dangerous Goods Regulations (see IATA/DGR)  |
| DNEL        | Derived No-Effect Level   |
| EC No       | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EH40/2005   | EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li-<br>cence/)  |
| EINECS      | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS      | European List of Notified Chemical Substances   |
| ErC50       | = EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control            |
| Eye Dam.    | Seriously damaging to the eye   |
| Eye Irrit.  | Irritant to the eye   |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| LC50        | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval                                 |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| PNEC        | Predicted No-Effect Concentration   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula-<br>tions concerning the International carriage of Dangerous goods by Rail)      |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| Skin Sens.  | Skin sensitisation  |
| STOT SE     | Specific target organ toxicity - single exposure  |
| SVHC        | Substance of Very High Concern  |
| TWA         | Time-weighted average   |
| vPvB        | Very Persistent and very Bioaccumulative  |

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| Abbr. | Descriptions of used abbreviations |
|-------|------------------------------------|
| WEL   | Workplace exposure limit           |

#### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

## **Classification procedure**

Physical and chemical properties.

Health hazards.

Environmental hazards.

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

## List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text                                 |
|------|--------------------------------------|
| H315 | Causes skin irritation.              |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage.           |
| H335 | May cause respiratory irritation.    |

#### Responsible for the safety data sheet

C.S.B. GmbH Telephone: +49 (0) 2151 - 652086 - 0

Düsseldorfer Str. 113 Telefax: +49 (0) 2151 - 652086 - 9

47809 Krefeld, Germany e-Mail: info@csb-online.de

Website: www.csb-online.de

#### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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