

## Safety Data Sheet according to Regulation (EC) 'No. 2015/830



### SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

|                               |                              |                         |            |
|-------------------------------|------------------------------|-------------------------|------------|
| <b>1.1 Product Identifier</b> | FLOWTEX F1 MORTAR HARDENER B | <b>Revision Date:</b>   | 20/10/2021 |
| <b>Product Name:</b>          | Flowtex F1 Mortar Hardener B | <b>Supersedes Date:</b> | 21/09/2018 |

**UFI Code:** MRE0-W0SH-X00U-NNFT

|  |   |
|--|---|
| <b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b> | Coatings and paints, thinners, paint removers. Manual activities involving hand contact. Widespread use leading to inclusion into/onto article (indoor). For use by appropriately trained applicators. Roller application or brushing. Low energy spreading of coatings. Advised against: Home DIY applications, because of the health hazards and training required. |
|--|---|

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

**Manufacturer:** Flowcrete Polska Sp. z o. o.  
Ul. Marywilska 34  
03-228 Warszawa  
Polska

Tel: +48 22 879 8907  
Fax: +48 22 879 8918  
ehs.uk@flowcrete.com  
www.flowcrete.com.pl/

**Datasheet Produced by:** ehs.uk@flowcrete.com

|  |                                      |
|--|--------------------------------------|
| <b>1.4 Emergency telephone number:</b> | CHEMTREC +1 703 5273887 (Outside US) |
|--|--------------------------------------|

Giftinformasjonen: +47 22 59 13 00

### SECTION 2: Hazard Identification

#### 2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

#### HAZARD STATEMENTS

Acute Toxicity, Oral, category 4

H302

Skin Corrosion, category 1B  
 Skin Sensitizer, category 1  
 Acute Toxicity, Inhalation, category 4  
 Hazardous to the aquatic environment, Chronic, category 3

H314-1B  
 H317  
 H332  
 H412

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

Benzyl alcohol, m-Phenylenebis(methylamine), 3-Aminomethyl-3,5,5-trimethylcyclohexylamine

#### HAZARD STATEMENTS

|   |         |  |
|---|---------|--|
| Acute Toxicity, Oral, category 4                          | H302    | Harmful if swallowed.                              |
| Skin Corrosion, category 1B                               | H314-1B | Causes severe skin burns and eye damage.           |
| Skin Sensitizer, category 1                               | H317    | May cause an allergic skin reaction.               |
| Acute Toxicity, Inhalation, category 4                    | H332    | Harmful if inhaled.                                |
| Hazardous to the aquatic environment, Chronic, category 3 | H412    | Harmful to aquatic life with long lasting effects. |

#### PRECAUTION PHRASES

|                |   |
|----------------|---|
| P260           | Do not breathe dust/fume/gas/mist/vapours/spray.  |
| P264           | Wash hands thoroughly after handling.   |
| P270           | Do not eat, drink or smoke when using this product.   |
| P273           | Avoid release to the environment.   |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.  |
| P301+310       | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.   |
| P301+330+331   | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  |
| P302+352       | IF ON SKIN: Wash with plenty of soap and water.   |
| P304+340       | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.                                    |
| P305+351+338   | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. |
| P333+313       | If skin irritation or rash occurs: Get medical advice/attention.  |
| P363           | Wash contaminated clothing before reuse.  |

## 2.3 Other hazards

No Information

### Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

## SECTION 3: Composition/Information On Ingredients

### 3.2 Mixtures

#### Hazardous ingredients

| <u>Name According to EEC</u> | <u>EINEC No.</u> | <u>CAS-No.</u> | <u>%</u> | <u>Classifications</u> |
|------------------------------|------------------|----------------|----------|------------------------|
|------------------------------|------------------|----------------|----------|------------------------|

|  |           |           |          |                      |   |
|--|-----------|-----------|----------|----------------------|---|
| Benzyl alcohol                               | 202-859-9 | 100-51-6  | 25 - <50 | H302-332             | Acute Tox. 4 Inhalation,<br>Acute Tox. 4 Oral   |
| 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 220-666-8 | 2855-13-2 | 25 - <50 | H302-312-314-317-412 | Acute Tox. 4 Dermal,<br>Acute Tox. 4 Oral,<br>Aquatic Chronic 3, Skin<br>Corr. 1B, Skin Sens. 1A    |
| m-Phenylenebis(methylamine)                  | 216-032-5 | 1477-55-0 | 10 - <25 | H302-314-317-332-412 | Acute Tox. 4 Inhalation,<br>Acute Tox. 4 Oral,<br>Aquatic Chronic 3, Skin<br>Corr. 1B, Skin Sens. 1 |

| <u>CAS-No.</u> | <u>M-Factors</u> | <u>REACH Reg No.</u> |
|----------------|------------------|----------------------|
| 100-51-6       |                  | 01-2119492630-38     |
| 2855-13-2      |                  | 01-2119514687-32     |
| 1477-55-0      |                  | 01-2119480150-50     |

**Additional Information:** The text for CLP Hazard Statements shown above (if any) is given in Section 16.

## SECTION 4: First-aid Measures

### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance. Risk of product entering the lungs on vomiting after ingestion. Remove contaminated clothing and shoes.

**AFTER INHALATION:** Keep respiratory tract clear. Remove person to fresh air. If signs/symptoms continue, get medical attention.

**AFTER SKIN CONTACT:** Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

**AFTER EYE CONTACT:** Keep eye wide open while rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

**AFTER INGESTION:** Gently wipe or rinse the inside of the mouth with water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If swallowed, seek medical advice immediately and show this container or label.

#### Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

No Information

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

## SECTION 5: Fire-fighting Measures

### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above.

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

No Information

**5.3 Advice for firefighters**

Keep containers and surroundings cool with water spray. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In the event of fire, wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**SECTION 6: Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak.

**6.2 Environmental precautions**

Do not allow material to contaminate ground water system. Prevent product from entering drains. May cause long-term adverse effects in the aquatic environment.

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

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Refer to protective measures listed in sections 7 and 8.

**6.4 Reference to other sections**

**FURTHER INSTRUCTIONS:** Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

**SECTION 7: Handling and Storage****7.1 Precautions for safe handling**

Wear personal protective equipment. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Keep away from food, drink and animal feedingstuffs. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

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

**CONDITIONS TO AVOID:** Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat.

**STORAGE CONDITIONS:** Do not freeze. Store at room temperature in the original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

**7.3 Specific end use(s)**

Component of a resin flooring product. The mixing and application to be in accordance with the technical data sheets.

**SECTION 8: Exposure Controls/Personal Protection****8.1 Control parameters****Ingredients with Occupational Exposure Limits (UK WELS)**

| <u>Name</u>                                  | <u>CAS-No.</u> | <u>LTEL ppm</u> | <u>STEL ppm</u> | <u>STEL mg/m3</u> | <u>LTEL mg/m3</u> |
|--|----------------|-----------------|-----------------|-------------------|-------------------|
| Benzyl alcohol                               | 100-51-6       |                 |                 |                   |                   |
| 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2      |                 |                 |                   |                   |
| m-Phenylenebis(methylamine)                  | 1477-55-0      |                 |                 |                   |                   |

| <u>Name</u>                                  | <u>CAS-No.</u> | <u>OEL Note</u> |
|--|----------------|-----------------|
| Benzyl alcohol                               | 100-51-6       |                 |
| 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2      |                 |
| m-Phenylenebis(methylamine)                  | 1477-55-0      |                 |

**FURTHER ADVICE:** Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

## 8.2 Exposure controls

### Personal Protection

**RESPIRATORY PROTECTION:** In case of insufficient ventilation wear suitable respiratory equipment. Respirator with filter for organic vapor.

**EYE PROTECTION:** Eye wash bottle with pure water. Tightly fitting safety goggles.

**HAND PROTECTION:** Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** As a rule, at least 5 air changes per hour are recommended at the workplace. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

### Chemical Name:

Benzyl alcohol

### EC No.:

202-859-9

### CAS-No.:

100-51-6

### DNELs - Derived no effect level

| Route of Exposure | Workers            |                        |                       |                          | Consumers          |                        |                       |                          |
|-------------------|--------------------|------------------------|-----------------------|--------------------------|--------------------|------------------------|-----------------------|--------------------------|
|                   | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic |
| Oral              | Not required       |                        |                       |                          |                    | 20 mg/kg bw/d          |                       | 4 mg/kg bw/d             |
| Inhalation        | -                  | 110 mg/m <sup>3</sup>  | -                     | 22 mg/m <sup>3</sup>     | -                  | 27 mg/m <sup>3</sup>   | -                     | 5.4 mg/m <sup>3</sup>    |
| Dermal            | -                  | 40 mg/kg bw/d          | -                     | 8 mg/kg bw/d             | -                  | 20 mg/kg bw/d          | -                     | 4 mg/kg bw/d             |

### PNEC's - Predicted no effect concentration

| Environmental protection target                        | PNEC        |
|--|-------------|
| Fresh water  | 1 mg/l      |
| Fresh water sediments                                  | 5.27 mg/kg  |
| Marine water   | 0.1 mg/l    |
| Marine sediments                                       | 0.527 mg/kg |
| Food chain   |             |
| Microorganisms in sewage treatment soil (agricultural) | 39 mg/l     |
| Air  | 0.456 mg/kg |

### Chemical Name:

3-Aminomethyl-3,5,5-trimethylcyclohexylamine

### EC No.:

220-666-8

### CAS-No.:

2855-13-2

### DNELs - Derived no effect level

| Route of Exposure | Workers                 |                        |                         |                          | Consumers          |                        |                       |                          |
|-------------------|-------------------------|------------------------|-------------------------|--------------------------|--------------------|------------------------|-----------------------|--------------------------|
|                   | Acute effect local      | Acute effects systemic | Chronic effects local   | Chronic effects systemic | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic |
| Oral              | Not required            |                        |                         |                          |                    |                        |                       | 0.526 mg/kg bw/d         |
| Inhalation        | 0.073 mg/m <sup>3</sup> |                        | 0.073 mg/m <sup>3</sup> |                          |                    |                        |                       |                          |
| Dermal            |                         |                        |                         |                          |                    |                        |                       |                          |

### PNEC's - Predicted no effect concentration

| Environmental protection target                        | PNEC                                |
|--|-------------------------------------|
| Fresh water  | 0.06 mg/l                           |
| Fresh water sediments                                  | 5.784 mg/kg (sediment dw)           |
| Marine water   | 0.006 mg/l                          |
| Marine sediments                                       | 0.578 mg/kg (sediment dw)           |
| Food chain   | Not expected to be bioaccumulative. |
| Microorganisms in sewage treatment soil (agricultural) | 3.18 mg/l                           |
| Air  | 1.121 mg/kg (soil dw)               |

**Chemical Name:**

m-Phenylenebis(methylamine)

**EC No.:**

216-032-5

**CAS-No.:**

1477-55-0

**DNELs - Derived no effect level**

| Route of Exposure | Workers            |                        |                       |                          | Consumers          |                        |                       |                          |
|-------------------|--------------------|------------------------|-----------------------|--------------------------|--------------------|------------------------|-----------------------|--------------------------|
|                   | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic |
| Oral              | Not required       |                        |                       |                          |                    |                        |                       |                          |
| Inhalation        |                    |                        | 0.2 mg/m <sup>3</sup> | 1.2 mg/m <sup>3</sup>    |                    |                        |                       |                          |
| Dermal            |                    |                        |                       | 0.33 mg/kg bw/d          |                    |                        |                       |                          |

**PNEC's - Predicted no effect concentration**

| Environmental protection target                        | PNEC        |
|--|-------------|
| Fresh water  | 0.094 mg/l  |
| Fresh water sediments                                  | 0.43 mg/kg  |
| Marine water   | 0.0094 mg/l |
| Marine sediments                                       | 0.043 mg/kg |
| Food chain   |             |
| Microorganisms in sewage treatment soil (agricultural) | 10 mg/l     |
| Air  | 0.045 mg/kg |

**SECTION 9: Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

|   |                |
|---|----------------|
| <b>Appearance:</b>                                  | colourless     |
| <b>Physical State</b>                               | Liquid         |
| <b>Odor</b>   | amine like     |
| <b>Odor threshold</b>                               | Not determined |
| <b>pH</b>   | alkaline       |
| <b>Melting point / freezing point (°C)</b>          | Not determined |
| <b>Boiling point/range (°C)</b>                     | 205 - N.D.     |
| <b>Flash Point, (°C)</b>                            | 110            |
| <b>Evaporation rate</b>                             | Not determined |
| <b>Flammability (solid, gas)</b>                    | Not determined |
| <b>Upper/lower flammability or explosive limits</b> | Not determined |
| <b>Vapour Pressure</b>                              | Not determined |
| <b>Vapour density</b>                               | Not determined |
| <b>Relative density</b>                             | ca. 1.04       |
| <b>Solubility in / Miscibility with water</b>       | insoluble      |
| <b>Partition coefficient: n-octanol/water</b>       | Not determined |
| <b>Auto-ignition temperature (°C)</b>               | Not determined |
| <b>Decomposition temperature (°C)</b>               | Not determined |
| <b>Viscosity</b>                                    | Not determined |
| <b>Explosive properties</b>                         | Not Applicable |
| <b>Oxidising properties</b>                         | Not Applicable |

**9.2 Other information**

|                                       |       |
|---------------------------------------|-------|
| VOC Content g/l:                      | <50   |
| Specific Gravity (g/cm <sup>3</sup> ) | 0.120 |

**SECTION 10: Stability and Reactivity****10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

**10.2 Chemical stability**

No decomposition if stored and applied as directed. Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

Hazardous polymerisation does not occur.

**10.4 Conditions to avoid**

Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat.

**10.5 Incompatible materials**

Acids. Strong oxidizing agents.

**10.6 Hazardous decomposition products**

In case of fire **hazardous decomposition products** may be produced such as: Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

**SECTION 11: Toxicological Information****11.1 Information on toxicological effects****Acute Toxicity:**

|                  |                |
|------------------|----------------|
| Oral LD50:       | No Information |
| Inhalation LC50: | No Information |

**Irritation:** No information available.

**Corrosivity:** Corrosive to eyes and skin.

**Sensitization:** Prolonged or repeated skin contact may result in allergic eczema.

**Repeated dose toxicity:** No information available.

**Carcinogenicity:** No information available.

**Mutagenicity:** No information available.

**Toxicity for reproduction:** No information available.

**STOT-single exposure:** No information available.

**STOT-repeated exposure:** No information available.

**Aspiration hazard:** No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested.  
Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Name According to EEC</u> | <u>Oral LD50</u> | <u>Dermal LD50</u>  | <u>Vapor LC50</u> | <u>Gas LC50</u> | <u>Dust/Mist LC50</u> |
|----------------|------------------------------|------------------|---------------------|-------------------|-----------------|-----------------------|
| 100-51-6       | Benzyl alcohol               | 1620 mg/kg (rat) | 2001 mg/kg (rabbit) | >20 (N/A)         | >20000 (N/A)    | >4 mg/l (4 h, rat)    |

|           |  |                  |                      |                |                |                       |
|-----------|--|------------------|----------------------|----------------|----------------|-----------------------|
| 2855-13-2 | 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 1030 mg/kg (rat) | 1840 mg/kg (rabbit)  | Not determined | Not determined | > 5.01 mg/l (rat, 4h) |
| 1477-55-0 | m-Phenylenebis (methylamine)                 | 930 mg/kg (rat)  | >2000 mg/kg (rabbit) | Not determined | Not determined | 1.34 mg/l (rat)       |

**Additional Information:**

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Corrosive - causes irreversible eye damage.

**SECTION 12: Ecological Information****12.1 Toxicity:**

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

**12.2 Persistence and degradability:** No information

**12.3 Bioaccumulative potential:** No information

**12.4 Mobility in soil:** No information

**12.5 Results of PBT and vPvB assessment:** The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

**12.6 Other adverse effects:** No information

| <u>CAS-No.</u> | <u>Name According to EEC</u>                 | <u>EC50 48hr</u>          | <u>IC50 72hr</u>               | <u>LC50 96hr</u>               |
|----------------|--|---------------------------|--------------------------------|--------------------------------|
| 100-51-6       | Benzyl alcohol                               | 230 mg/l                  | 770 mg/l (Pseudokirchneriella) | 460 mg/l (Pimephales promelas) |
| 2855-13-2      | 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 23 mg/l (Daphnia magna)   | No information                 | 110 mg/l (Leuciscus idus)      |
| 1477-55-0      | m-Phenylenebis(methylamine)                  | 15.2 mg/l (Daphnia magna) | 20.3 mg/l (P. subcapitata)     | 87.6 mg/l (Oryzias latipes)    |

**SECTION 13: Disposal Considerations**

**13.1 WASTE TREATMENT METHODS:** Dispose of as hazardous waste in compliance with local and national regulations. Container hazardous when empty. Empty containers should be taken to an approved waste handling site for recycling or disposal. The product should not be allowed to enter drains, water courses or the soil.

European Waste Code: 080111

Packaging Waste Code: 150110

**SECTION 14: Transport Information**

|  |                                    |
|--|------------------------------------|
| <b>14.1 UN number</b>  | UN2735                             |
| <b>14.2 UN proper shipping name</b>  | Amines, liquid, corrosive, N.O.S.  |
| <b>Technical name</b>  | (Benzene-1,3-dimethanamine (MXDA)) |
| <b>14.3 Transport hazard class(es)</b>   | 8                                  |
| <b>Subsidiary shipping hazard</b>  | Not applicable                     |
| <b>14.4 Packing group</b>  | II                                 |
| <b>14.5 Environmental hazards</b>  | Not applicable                     |
| <b>14.6 Special precautions for user</b>   | Not applicable                     |
| <b>EmS-No.:</b>  | Not applicable                     |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code</b> | Not applicable                     |



## SECTION 15: Regulatory Information

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

#### National Regulations:

|  |                |
|--|----------------|
| Denmark Product Registration Number:   | Not available  |
| Danish MAL Code:   | Not available  |
| Danish MAL Code - Mixture:   | Not available  |
| Sweden Product Registration Number:  | Not available  |
| Norway Product Registration Number:  | Not available  |
| Germany WGK Class:   | 2              |
| Directive 2004/42/CE :   | <50            |
| Covered by Directive 2012/18/EC (Seveso III):  | Not applicable |
| Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006: | Not applicable |

#### Annex XIV - Authorisation List:

##### CAS-No.      Name According to EEC

Not Applicable

#### SVHC - Substances of very high concern (Candidate List):

##### CAS-No.      Name According to EEC

Not Applicable

### 15.2 Chemical Safety Assessment:

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

## SECTION 16: Other Information

### Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

|      |  |
|------|--|
| 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.               |
| H332 | Harmful if inhaled.                                |
| H412 | Harmful to aquatic life with long lasting effects. |

#### Reasons for revision

Substance and/or Product Properties Changed in Section(s) :

- 01 - Identification
- 02 - Hazard Identification
- 08 - Exposure Controls/Personal Protection
- 11 - Toxicological Information
- 12 - Ecological Information
- 15 - Regulatory Information

Substance CAS Number Changed

Revision Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

#### List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;  
European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;  
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);  
EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

#### Acronym & Abbreviation Key:

|        |   |
|--------|---|
| CLP    | Classification, Labeling & Packaging Regulation   |
| EC     | European Commission   |
| EU     | European Union  |
| US     | United States   |
| CAS    | Chemical Abstract Service   |
| EINECS | European Inventory of Existing Chemical Substances  |
| REACH  | Registration, Evaluation, Authorization of Chemicals Regulation   |
| GHS    | Globally Harmonized System of Classification and Labeling of Chemicals  |
| LTEL   | Long term exposure limit  |
| STEL   | Short term exposure limit   |
| OEL    | Occupational exposure limit   |
| ppm    | Parts per million   |
| mg/m3  | Milligrams per cubic meter  |
| TLV    | Threshold Limit Value   |
| ACGIH  | American Conference of Governmental Industrial Hygienists   |
| OSHA   | Occupational Safety & Health Administration   |
| PEL    | Permissible Exposure Limits   |
| VOC    | Volatile organic compounds  |
| g/l    | Grams per liter   |
| mg/kg  | Milligrams per kilogram   |
| N/A    | Not applicable  |
| LD50   | Lethal dose at 50%  |
| LC50   | Lethal concentration at 50%   |
| EC50   | Half maximal effective concentration  |
| IC50   | Half maximal inhibitory concentration   |
| PBT    | Persistent bioaccumulative toxic chemical   |
| vPvB   | Very persistent and very bioaccumulative  |
| EEC    | European Economic Community   |
| ADR    | International Transport of Dangerous Goods by Road  |
| RID    | International Transport of Dangerous Goods by Rail  |
| UN     | United Nations  |
| IMDG   | International Maritime Dangerous Goods Code   |
| IATA   | International Air Transport Association   |
| MARPOL | International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 |
| IBC    | International Bulk Container  |
| RTI    | Respiratory Tract Irritation  |
| NE     | Narcotic Effects  |

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.