

**MasterFlow 4316**

Version            Revision Date:            SDS Number:            Date of last issue: -  
1.0                07/27/2020                000000539831            Date of first issue: 07/27/2020

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**SECTION 1. IDENTIFICATION**

Product name                : MasterFlow 4316  
Product code                : 000000000050288115 000000000050288115  
Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier    : Master Builders Solutions Canada Inc.  
Address                        : 1800 CLARK BLVD  
                                      Brampton ON L6T 4M7  
Emergency telephone         : ChemTel: +1-813-248-0585;

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

Recommended use             : Product for construction chemicals  
Restrictions on use            : Reserved for industrial and professional use.

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**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Skin corrosion/irritation    : 2  
Serious eye damage/eye irritation : Category 1  
Carcinogenicity (Inhalation) : 1A (Lung)  
Specific target organ toxicity : 2 (Kidney, Immune system)  
- repeated exposure (Inhalation)  
Specific target organ toxicity : 3 (Respiratory system)  
- single exposure  
Specific target organ toxicity : Category 1  
- repeated exposure (Inhalation)

**GHS label elements**

Hazard pictograms            : 

Signal Word                  : Danger



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|   |            |             |
|---|------------|-------------|
| Iron oxide                                      | 1309-37-1  | >= 0 - < 10 |
| magnesium oxide                                 | 1309-48-4  | >= 0 - < 3  |
| Limestone                                       | 1317-65-3  | >= 0 - < 7  |
| Silicon dioxide                                 | 7631-86-9  | >= 1 - < 5  |
| Calcium sulphate                                | 7778-18-9  | >= 0 - < 7  |
| Gypsum (Ca(SO <sub>4</sub> ).2H <sub>2</sub> O) | 13397-24-5 | >= 0 - < 3  |

## SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
 Consult a physician.  
 Show this material safety data sheet to the doctor in attendance.  
 Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.  
 If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.  
 If on skin, rinse well with water.  
 If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
 In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 Continue rinsing eyes during transport to hospital.  
 Remove contact lenses.  
 Protect unharmed eye.  
 Keep eye wide open while rinsing.  
 If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
 Do NOT induce vomiting.  
 Do not give milk or alcoholic beverages.  
 Never give anything by mouth to an unconscious person.  
 If symptoms persist, call a physician.  
 Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.  
 Causes serious eye damage.  
 May cause respiratory irritation.  
 May cause cancer.  
 Causes damage to organs through prolonged or repeated exposure if inhaled.
- Notes to physician : Treat symptomatically.

## SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Foam  
 Dry powder

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- Water spray  
Carbon dioxide (CO<sub>2</sub>)
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.
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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.  
Ensure adequate ventilation.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Neutralize with acid.  
Keep in suitable, closed containers for disposal.
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**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Avoid dust formation.  
Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapors/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Observe label precautions.  
Electrical installations / working materials must comply with
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the technological safety standards.

Further information on storage conditions : Containers should be stored tightly sealed in a dry place.

Materials to avoid : Segregate from metals.  
 Segregate from acids and bases.  
 Segregate from oxidants.  
 Segregate from foods and animal feeds.

Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Ingredients with workplace control parameters

| Components    | CAS-No.   | Value type<br>(Form of exposure)   | Control parameters / Permissible concentration | Basis                                |
|---------------|-----------|------------------------------------|--|--------------------------------------|
| calcium oxide | 1305-78-8 | TWA value                          | 2 mg/m <sup>3</sup>                            | ACGIHTLV                             |
|               |           | REL value                          | 2 mg/m <sup>3</sup>                            | NIOSH                                |
|               |           | PEL                                | 5 mg/m <sup>3</sup>                            | 29 CFR<br>1910.1000<br>(Table Z-1)   |
|               |           | TWA value                          | 5 mg/m <sup>3</sup>                            | 29 CFR<br>1910.1000<br>(Table Z-1-A) |
|               |           | TWA                                | 2 mg/m <sup>3</sup>                            | CA AB OEL                            |
|               |           | TWA                                | 2 mg/m <sup>3</sup>                            | CA BC OEL                            |
|               |           | TWAEV                              | 2 mg/m <sup>3</sup>                            | CA QC OEL                            |
| Iron oxide    | 1309-37-1 | TWA                                | 2 mg/m <sup>3</sup>                            | ACGIH                                |
|               |           | TWA value<br>(Respirable fraction) | 5 mg/m <sup>3</sup>                            | ACGIHTLV                             |
|               |           | REL value<br>(Dust and fume)       | 5 mg/m <sup>3</sup><br>(iron (Fe))             | NIOSH                                |
|               |           | PEL<br>(fumes/smoke)               | 10 mg/m <sup>3</sup>                           | 29 CFR<br>1910.1000<br>(Table Z-1)   |
|               |           | TWA value<br>(fumes/smoke)         | 10 mg/m <sup>3</sup>                           | 29 CFR<br>1910.1000<br>(Table Z-1-A) |
|               |           | TWA (Respirable)                   | 5 mg/m <sup>3</sup>                            | CA AB OEL                            |
|               |           | TWA<br>(Fumes)                     | 5 mg/m <sup>3</sup><br>(Iron)                  | CA BC OEL                            |
|               |           | TWA (Dust)                         | 5 mg/m <sup>3</sup><br>(Iron)                  | CA BC OEL                            |
|               |           | STEL<br>(Fumes)                    | 10 mg/m <sup>3</sup><br>(Iron)                 | CA BC OEL                            |
|               |           | TWAEV                              | 5 mg/m <sup>3</sup>                            | CA QC OEL                            |

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|                 |           |                                     |                      |                                |
|-----------------|-----------|-------------------------------------|----------------------|--------------------------------|
|                 |           | (fume and dust)                     | (Iron)               |                                |
|                 |           | TWA (Respirable particulate matter) | 5 mg/m3              | ACGIH                          |
| magnesium oxide | 1309-48-4 | TWA value (Inhalable fraction)      | 10 mg/m3             | ACGIH TLV                      |
|                 |           | PEL (Total particulate)             | 15 mg/m3             | 29 CFR 1910.1000 (Table Z-1)   |
|                 |           | TWA value (Total particulate)       | 10 mg/m3             | 29 CFR 1910.1000 (Table Z-1-A) |
|                 |           | TWA (Fumes)                         | 10 mg/m3             | CA AB OEL                      |
|                 |           | TWA (Inhalable fume)                | 10 mg/m3 (Magnesium) | CA BC OEL                      |
|                 |           | TWA (Respirable dust and fume)      | 3 mg/m3 (Magnesium)  | CA BC OEL                      |
|                 |           | STEL (Respirable dust and fume)     | 10 mg/m3 (Magnesium) | CA BC OEL                      |
|                 |           | TWAEV (Fumes)                       | 10 mg/m3 (Magnesium) | CA QC OEL                      |
|                 |           | TWA (Inhalable particulate matter)  | 10 mg/m3             | ACGIH                          |
| Limestone       | 1317-65-3 | REL value (Respirable)              | 5 mg/m3              | NIOSH                          |
|                 |           | REL value (Total)                   | 10 mg/m3             | NIOSH                          |
|                 |           | PEL (Respirable fraction)           | 5 mg/m3              | 29 CFR 1910.1000 (Table Z-1)   |
|                 |           | PEL (Total dust)                    | 15 mg/m3             | 29 CFR 1910.1000 (Table Z-1)   |
|                 |           | TWA value (Respirable fraction)     | 5 mg/m3              | 29 CFR 1910.1000 (Table Z-1-A) |
|                 |           | TWA value (Total dust)              | 15 mg/m3             | 29 CFR 1910.1000 (Table Z-1-A) |
|                 |           | TWA                                 | 10 mg/m3             | CA AB OEL                      |
|                 |           | TWAEV (total dust)                  | 10 mg/m3             | CA QC OEL                      |
|                 |           | TWA (Total dust)                    | 10 mg/m3             | CA BC OEL                      |
|                 |           | TWA (respirable dust fraction)      | 3 mg/m3              | CA BC OEL                      |

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|   |            |                                    |  |                                      |
|---|------------|------------------------------------|--|--------------------------------------|
|   |            | STEL                               | 20 mg/m <sup>3</sup>                                 | CA BC OEL                            |
| Silicon dioxide                                 | 7631-86-9  | REL value                          | 6 mg/m <sup>3</sup>                                  | NIOSH                                |
|   |            | TWA value                          | 6 mg/m <sup>3</sup>                                  | 29 CFR<br>1910.1000<br>(Table Z-1-A) |
|   |            | TWA value                          | 20 millions of<br>particles per cubic<br>foot of air | 29 CFR<br>1910.1000<br>(Table Z-3)   |
|   |            | TWA value                          | 0.8 mg/m <sup>3</sup>                                | 29 CFR<br>1910.1000<br>(Table Z-3)   |
|   |            | TWA (Respirable particulates)      | 0.025 mg/m <sup>3</sup><br>(Silica)                  | CA AB OEL                            |
| Calcium sulphate                                | 7778-18-9  | TWA value<br>(Inhalable fraction)  | 10 mg/m <sup>3</sup>                                 | ACGIHTLV                             |
|   |            | REL value<br>(Respirable)          | 5 mg/m <sup>3</sup>                                  | NIOSH                                |
|   |            | REL value<br>(Total)               | 10 mg/m <sup>3</sup>                                 | NIOSH                                |
|   |            | PEL (Respirable fraction)          | 5 mg/m <sup>3</sup>                                  | 29 CFR<br>1910.1000<br>(Table Z-1)   |
|   |            | PEL (Total dust)                   | 15 mg/m <sup>3</sup>                                 | 29 CFR<br>1910.1000<br>(Table Z-1)   |
|   |            | TWA value<br>(Respirable fraction) | 5 mg/m <sup>3</sup>                                  | 29 CFR<br>1910.1000<br>(Table Z-1-A) |
|   |            | TWA value<br>(Total dust)          | 15 mg/m <sup>3</sup>                                 | 29 CFR<br>1910.1000<br>(Table Z-1-A) |
|   |            | TWA (Inhalable)                    | 10 mg/m <sup>3</sup>                                 | CA BC OEL                            |
|   |            | TWAEV<br>(respirable dust)         | 5 mg/m <sup>3</sup>                                  | CA QC OEL                            |
|   |            | TWAEV (total dust)                 | 10 mg/m <sup>3</sup>                                 | CA QC OEL                            |
|   |            | TWA                                | 10 mg/m <sup>3</sup><br>(Calcium)                    | CA AB OEL                            |
|   |            | TWA (Inhalable particulate matter) | 10 mg/m <sup>3</sup><br>(Calcium)                    | ACGIH                                |
| Gypsum (Ca(SO <sub>4</sub> ).2H <sub>2</sub> O) | 13397-24-5 | TWA value<br>(Inhalable fraction)  | 10 mg/m <sup>3</sup>                                 | ACGIHTLV                             |
|   |            | REL value<br>(Respirable)          | 5 mg/m <sup>3</sup>                                  | NIOSH                                |
|   |            | REL value<br>(Total)               | 10 mg/m <sup>3</sup>                                 | NIOSH                                |
|   |            | PEL (Total dust)                   | 15 mg/m <sup>3</sup>                                 | 29 CFR<br>1910.1000                  |

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|                             |            |  |   |                                |
|-----------------------------|------------|--|---|--------------------------------|
|                             |            |  |   | (Table Z-1)                    |
|                             |            | PEL (Respirable fraction)                    | 5 mg/m <sup>3</sup>                       | 29 CFR 1910.1000 (Table Z-1)   |
|                             |            | TWA value (Total dust)                       | 15 mg/m <sup>3</sup>                      | 29 CFR 1910.1000 (Table Z-1-A) |
|                             |            | TWA value (Respirable fraction)              | 5 mg/m <sup>3</sup>                       | 29 CFR 1910.1000 (Table Z-1-A) |
|                             |            | TWA  | 10 mg/m <sup>3</sup>                      | CA AB OEL                      |
|                             |            | TWA (Total dust)                             | 10 mg/m <sup>3</sup>                      | CA BC OEL                      |
|                             |            | TWA (respirable dust fraction)               | 3 mg/m <sup>3</sup>                       | CA BC OEL                      |
|                             |            | STEL   | 20 mg/m <sup>3</sup>                      | CA BC OEL                      |
|                             |            | TWAEV (respirable dust)                      | 5 mg/m <sup>3</sup>                       | CA QC OEL                      |
|                             |            | TWAEV (total dust)                           | 10 mg/m <sup>3</sup>                      | CA QC OEL                      |
|                             |            | TWA (Inhalable particulate matter)           | 10 mg/m <sup>3</sup> (Calcium)            | ACGIH                          |
| Quartz (SiO <sub>2</sub> )  | 14808-60-7 | TWA value (Respirable fraction)              | 0.025 mg/m <sup>3</sup>                   | ACGIHTLV                       |
|                             |            | TWA value (Respirable dust)                  | 0.05 mg/m <sup>3</sup>                    | 29 CFR 1910.1001-1050          |
|                             |            | OSHA Action level                            | 0.025 mg/m <sup>3</sup> (Respirable dust) | 29 CFR 1910.1001-1050          |
|                             |            | REL value (Respirable dust)                  | 0.05 mg/m <sup>3</sup>                    | NIOSH                          |
|                             |            | TWA (Respirable particulates)                | 0.025 mg/m <sup>3</sup>                   | CA AB OEL                      |
|                             |            | TWA (Respirable fraction)                    | 0.1 mg/m <sup>3</sup>                     | CA ON OEL                      |
|                             |            | TWAEV (respirable dust)                      | 0.1 mg/m <sup>3</sup>                     | CA QC OEL                      |
|                             |            | TWA (Respirable) (Silica)                    | 0.025 mg/m <sup>3</sup>                   | CA BC OEL                      |
|                             |            | TWA (Respirable particulate matter) (Silica) | 0.025 mg/m <sup>3</sup>                   | ACGIH                          |
| Cement, portland, chemicals | 65997-15-1 | TWA value (Respirable)                       | 1 mg/m <sup>3</sup>                       | ACGIHTLV                       |



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|                            |            |                                     |  |                                |
|----------------------------|------------|-------------------------------------|--|--------------------------------|
|                            |            | fraction)                           |  |                                |
|                            |            | REL value (Total)                   | 10 mg/m3                                       | NIOSH                          |
|                            |            | REL value (Respirable)              | 5 mg/m3  | NIOSH                          |
|                            |            | PEL (Total dust)                    | 15 mg/m3                                       | 29 CFR 1910.1000 (Table Z-1)   |
|                            |            | PEL (Respirable fraction)           | 5 mg/m3  | 29 CFR 1910.1000 (Table Z-1)   |
|                            |            | TWA value (Total dust)              | 10 mg/m3                                       | 29 CFR 1910.1000 (Table Z-1-A) |
|                            |            | TWA value (Respirable fraction)     | 5 mg/m3  | 29 CFR 1910.1000 (Table Z-1-A) |
|                            |            | TWA value                           | 50 millions of particles per cubic foot of air | 29 CFR 1910.1000 (Table Z-3)   |
|                            |            | TWA                                 | 10 mg/m3                                       | CA AB OEL                      |
|                            |            | TWA (Respirable)                    | 1 mg/m3  | CA BC OEL                      |
|                            |            | TWAEV (respirable dust)             | 5 mg/m3  | CA QC OEL                      |
|                            |            | TWAEV (total dust)                  | 10 mg/m3                                       | CA QC OEL                      |
|                            |            | TWA (Respirable particulate matter) | 1 mg/m3  | ACGIH                          |
| Quartz (SiO <sub>2</sub> ) | 14808-60-7 | TWA value (Respirable fraction)     | 0.025 mg/m3                                    | ACGIHTLV                       |
|                            |            | REL value (Respirable dust)         | 0.05 mg/m3                                     | NIOSH                          |
|                            |            | TWA value (Respirable dust)         | 0.05 mg/m3                                     | 29 CFR 1910.1001-1050          |
|                            |            | OSHA Action level (Respirable dust) | 0.025 mg/m3                                    | 29 CFR 1910.1001-1050          |
|                            |            | TWA (Respirable particulates)       | 0.025 mg/m3                                    | CA AB OEL                      |
|                            |            | TWA (Respirable fraction)           | 0.1 mg/m3                                      | CA ON OEL                      |
|                            |            | TWAEV (respirable dust)             | 0.1 mg/m3                                      | CA QC OEL                      |
|                            |            | TWA (Res-                           | 0.025 mg/m3                                    | CA BC OEL                      |

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|  |  | pirable)                            | (Silica)             |       |
|  |  | TWA (Respirable particulate matter) | 0.025 mg/m3 (Silica) | ACGIH |

**Engineering measures** : Provide local exhaust ventilation to maintain recommended P.E.L.

**Personal protective equipment**

Respiratory protection : Breathing protection if dusts are formed.  
 Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures : Avoid contact with the skin, eyes and clothing.  
 Avoid inhalation of dusts.  
 In order to prevent contamination while handling, closed working clothes and working gloves should be used.  
 Handle in accordance with good building materials hygiene and safety practice.

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

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : powder

Color : gray

Odor : faint odour

Odor Threshold : Not determined due to potential health hazard by inhalation.

pH : 13 (20 °C)  
 (as aqueous solution)

Melting point : No applicable information available.

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|--|---|--|
| Freezing point                                   | : | No applicable information available.   |
| Boiling point                                    | : | No applicable information available.   |
| Flash point                                      | : | does not flash   |
| Evaporation rate                                 | : | No applicable information available.   |
| Flammability (solid, gas)                        | : | not determined   |
| Self-ignition                                    | : | not self-igniting  |
| Upper explosion limit / Upper flammability limit | : | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. |
| Lower explosion limit / Lower flammability limit | : | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. |
| Vapor pressure                                   | : | No applicable information available.   |
| Relative vapor density                           | : | No applicable information available.   |
| Relative density                                 | : | No applicable information available.   |
| Bulk density                                     | : | 1.25 g/m <sup>3</sup>  |
| Solubility(ies)                                  |   |  |
| Water solubility                                 | : | insoluble (15 °C)  |
| Solubility in other solvents                     | : | No applicable information available.   |
| Partition coefficient: n-octanol/water           | : | No applicable information available.   |
| Autoignition temperature                         | : | No applicable information available.   |
| Decomposition temperature                        | : | No decomposition if stored and handled as prescribed/indicated.  |
| Viscosity  |   |  |
| Viscosity, dynamic                               | : | No applicable information available.   |
| Viscosity, kinematic                             | : | No applicable information available.   |
| Explosive properties                             | : | Not explosive  |
| Oxidizing properties                             | : | Not an oxidizer.   |
| Self-heating substances                          | : | No data available  |

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Sublimation point : No applicable information available.

Molecular weight : No data available

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : See SDS section 7 - Handling and storage.

Incompatible materials : Strong bases  
Strong acids

Hazardous decomposition products : No hazardous decomposition products if stored and handled as prescribed/indicated.

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Not classified based on available information.

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Respiratory or skin sensitization****Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Product:**

Remarks : Chromate in this product has been reduced. Sensitization due to chromate within stated shelf-life is unlikely.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

May cause cancer.

**Reproductive toxicity**

Not classified based on available information.

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**STOT-single exposure**

May cause respiratory irritation.

**STOT-repeated exposure**

Causes damage to organs through prolonged or repeated exposure if inhaled.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks : The product has not been tested. The statement has been derived from the properties of the individual components.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

**Persistence and degradability****Product:**

Biodegradability : Remarks: not applicable

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: The product will not be readily bioavailable due to its consistency and insolubility in water.

**Components:****Cement, portland, chemicals:**

Partition coefficient: n-octanol/water : GLP: no  
Remarks: not applicable

**calcium oxide:**

Partition coefficient: n-octanol/water : Remarks: The value has not been determined because the substance is inorganic.

**Quartz (SiO<sub>2</sub>):**

Partition coefficient: n-octanol/water : Remarks: not applicable

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**Iron oxide:**

Partition coefficient: n-octanol/water : Remarks: Study scientifically not justified.

**magnesium oxide:**

Partition coefficient: n-octanol/water : Remarks: No data available.

**Silicon dioxide:**

Partition coefficient: n-octanol/water : Remarks: not applicable

**Calcium sulphate:**

Partition coefficient: n-octanol/water : GLP: no  
Remarks: The value has not been determined because the substance is inorganic.

**Gypsum (Ca(SO<sub>4</sub>).2H<sub>2</sub>O):**

Partition coefficient: n-octanol/water : Remarks: The value has not been determined because the substance is inorganic.

**Mobility in soil****Product:**

Distribution among environmental compartments : Remarks: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.  
The substance will not evaporate into the atmosphere from the water surface.

**Other adverse effects****Product:**

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

Additional ecological information : Observe allowable values of impurities of effluents discharged in water and soil (according regulation of ministry of the environment from November, 18th , 2014, law gazette pos. 1800 (Poland)

Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.



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| 3)   |   |   |
| 29 CFR 1910.1001-1050                      | : | OSHA - Specifically Regulated Substances (29 CFR 1910.1001-1050)  |
| ACGIH                                      | : | USA. ACGIH Threshold Limit Values (TLV)   |
| ACGIHTLV                                   | : | American Conference of Governmental Industrial Hygienists - threshold limit values (US)   |
| CA AB OEL                                  | : | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)   |
| CA BC OEL                                  | : | Canada. British Columbia OEL  |
| CA ON OEL                                  | : | Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.  |
| CA QC OEL                                  | : | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| NIOSH                                      | : | NIOSH Pocket Guide to Chemical Hazards (US)   |
| 29 CFR 1910.1000 (Table Z-1-A) / TWA value | : | Time Weighted Average (TWA):  |
| 29 CFR 1910.1000 (Table Z-1) / PEL         | : | Permissible exposure limit  |
| 29 CFR 1910.1000 (Table Z-3) / TWA value   | : | Time Weighted Average (TWA):  |
| 29 CFR 1910.1001-1050 / OSHA Action level  | : | OSHA Action level:  |
| 29 CFR 1910.1001-1050 / TWA value          | : | Time Weighted Average (TWA):  |
| ACGIH / TWA                                | : | 8-hour, time-weighted average   |
| ACGIHTLV / TWA value                       | : | Time Weighted Average (TWA):  |
| CA AB OEL / TWA                            | : | 8-hour Occupational exposure limit  |
| CA BC OEL / TWA                            | : | 8-hour time weighted average  |
| CA BC OEL / STEL                           | : | short-term exposure limit   |
| CA ON OEL / TWA                            | : | Time-Weighted Average Limit (TWA)   |
| CA QC OEL / TWA EV                         | : | Time-weighted average exposure value  |
| NIOSH / REL value                          | : | Recommended exposure limit (REL):   |

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumu-



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lative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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