

MasterFlow 4316

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/27/2020 000000539831 Date of first issue: 07/27/2020

SECTION 1. IDENTIFICATION

Product name : MasterFlow 4316

Product code : 00000000050274474 00000000050274474

Manufacturer or supplier's details

Company name of supplier : Master Builders-Construction Systems

US, LLC

Address : 23700 CHAGRIN BLVD

Beachwood OH 44122

Emergency telephone : ChemTel: +1-813-248-0585 USA: +1-800-255-3924 Contract

Number MIS9240420

Recommended use of the chemical and restrictions on use

Recommended use : Product for construction chemicals

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Skin corrosion/irritation : 2

Serious eye damage/eye

irritation

Category 1

Carcinogenicity (Inhalation) : 1A (Lung)

Specific target organ toxicity - repeated exposure (Inhala-

tion)

2 (Kidney, Immune system)

Specific target organ toxicity

- single exposure

3 (Respiratory system)

Specific target organ toxicity

- repeated exposure (Inhala-

tion)

Category 1

GHS label elements

Hazard pictograms



(!)



Signal Word : Danger

Hazard Statements : H318 Causes serious eye damage.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated

exposure if inhaled.



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Precautionary Statements

Prevention:

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

P201 Obtain special instructions before use.

P271 Use only outdoors or in a well-ventilated area.

P260 Do not breathe dust or mist.

P202 Do not handle until all safety precautions have been read and understood.

P270 Do not eat, drink or smoke when using this product. P264 Wash face, hands and any exposed skin thoroughly after handling.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water

P362 + P364 Take off contaminated clothing and wash it before reuse

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to appropriate hazardous waste collection point.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : No applicable information available.

Components

| Chemical name | CAS-No. | Concentration (% w/w) |
|-----------------------------|------------|-----------------------|
| Cement, portland, chemicals | 65997-15-1 | >= 25 - < 75 |
| calcium oxide | 1305-78-8 | >= 1 - < 7 |
| Quartz (SiO2) | 14808-60-7 | >= 0 - < 3 |
| 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(SO4).2H2O) | 13397-24-5 | >= 0 - < 3 |

MBCC GROUP

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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 attend-

ance.

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.

Small amounts splashed into eyes can cause irreversible tis-In case of eye contact

sue 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 eve damage. May cause respiratory irritation.

May cause cancer.

Causes damage to organs through prolonged or repeated

exposure if inhaled.

Treat symptomatically. Notes to physician

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Foam

> Dry powder Water spray

Carbon dioxide (CO2)

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 nec-

essary.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- :

tive equipment and emer-

gency 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.

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 ap-

plication 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

the technological safety standards.

Further information on stor-

age 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 stor-

age 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 | Control parame- | Basis |
|------------|---------|------------|--------------------|-------|
| | | (Form of | ters / Permissible | |
| | | exposure) | concentration | |



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| calcium oxide | 1305-78-8 | TWA value | 2 mg/m3 | ACGIHTLV |
|-----------------|-----------|----------------|-------------|---------------|
| | | REL value | 2 mg/m3 | NIOSH |
| | | PEL | 5 mg/m3 | 29 CFR |
| | | | | 1910.1000 |
| | | | | (Table Z-1) |
| | | TWA value | 5 mg/m3 | 29 CFR |
| | | | | 1910.1000 |
| | | | | (Table Z-1-A) |
| | | TWA | 2 mg/m3 | ACGIH |
| | | TWA | 2 mg/m3 | NIOSH REL |
| | | TWA | 5 mg/m3 | OSHA Z-1 |
| | | TWA | 5 mg/m3 | OSHA P0 |
| Iron oxide | 1309-37-1 | TWA value | 5 mg/m3 | ACGIHTLV |
| | | (Respirable | | |
| | | fraction) | | |
| | | REL value | 5 mg/m3 | NIOSH |
| | | (Dust and | (iron (Fe)) | |
| | | fume) | | |
| | | PEL | 10 mg/m3 | 29 CFR |
| | | (fumes/smok | | 1910.1000 |
| | | e) | | (Table Z-1) |
| | | TWA value | 10 mg/m3 | 29 CFR |
| | | (fumes/smok | | 1910.1000 |
| | | e) | | (Table Z-1-A) |
| | | TWA (Res- | 5 mg/m3 | ACGIH |
| | | pirable par- | | |
| | | ticulate mat- | | |
| | | ter) | | |
| | | TWA (dust | 5 mg/m3 | NIOSH REL |
| | | and fume) | (Iron) | |
| | | TWA | 10 mg/m3 | OSHA Z-1 |
| | | (Fumes) | | |
| | | TWA (total | 15 mg/m3 | OSHA Z-1 |
| | | dust) | | |
| | | TWA (respir- | 5 mg/m3 | OSHA Z-1 |
| | | able fraction) | | |
| | | TWA | 10 mg/m3 | OSHA P0 |
| | | (Fumes) | | |
| magnesium oxide | 1309-48-4 | TWA value | 10 mg/m3 | ACGIHTLV |
| | | (Inhalable | | |
| | | fraction) | | |
| | | PEL (Total | 15 mg/m3 | 29 CFR |
| | | particulate) | | 1910.1000 |
| | | | | (Table Z-1) |
| | | TWA value | 10 mg/m3 | 29 CFR |
| | | (Total partic- | | 1910.1000 |
| | | ulate) | | (Table Z-1-A) |
| | | TWA (Inhal- | 10 mg/m3 | ACGIH |
| | | able particu- | | |
| | | late matter) | | |
| | | TWA (fume, | 15 mg/m3 | OSHA Z-1 |
| | | total particu- | | |
| | | late) | | |
| | | TWA (Fume - | 10 mg/m3 | OSHA P0 |



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| | | total particu- | | |
|------------------|-----------|---------------------------------------|--|--------------------------------------|
| 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 (total dust) | 15 mg/m3 | OSHA Z-1 |
| | | TWA (respirable fraction) | 5 mg/m3 | OSHA Z-1 |
| | | TWA (Total dust) | 15 mg/m3 | OSHA P0 |
| | | TWA (respirable dust fraction) | 5 mg/m3 | OSHA P0 |
| | | TWA (Res- pirable) | 5 mg/m3 (Calcium car- bonate) | NIOSH REL |
| | | TWA (total) | 10 mg/m3 (Calcium car- bonate) | NIOSH REL |
| Silicon dioxide | 7631-86-9 | REL value | 6 mg/m3 | NIOSH |
| | | TWA value | 6 mg/m3 | 29 CFR 1910.1000 (Table Z-1-A) |
| | | TWA value | 20 millions of particles per cubic foot of air | 29 CFR 1910.1000 (Table Z-3) |
| | | TWA value | 0.8 mg/m3 | 29 CFR 1910.1000 (Table Z-3) |
| | | TWA (Dust) | 20 Million parti- cles per cubic foot (Silica) | OSHA Z-3 |
| | | TWA (Dust) | 80 mg/m3 / %SiO2 (Silica) | OSHA Z-3 |
| | | TWA (Respirable dust) | 0.05 mg/m3 (Silica) | NIOSH REL |
| | | TWA | 6 mg/m3 (Silica) | NIOSH REL |
| Calcium sulphate | 7778-18-9 | TWA value | 10 mg/m3 | ACGIHTLV |



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| | | (Inhalable | | |
|-----------------------|------------|--|-----------------------|--------------------------------------|
| | | fraction) REL value | E ma/m2 | NIOSH |
| | | (Respirable) | 5 mg/m3 | NIOSH |
| | | REL value (Total) | 10 mg/m3 | NIOSH |
| | | PEL (Respir- | 5 mg/m3 | 29 CFR |
| | | able fraction) | | 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 (Respirable) | 5 mg/m3 | NIOSH REL |
| | | TWA (total) | 10 mg/m3 | NIOSH REL |
| | | TWA (total dust) | 15 mg/m3 | OSHA Z-1 |
| | | TWA (respirable fraction) | 5 mg/m3 | OSHA Z-1 |
| | | TWA (Total dust) | 15 mg/m3 | OSHA P0 |
| | | TWA (respirable dust fraction) | 5 mg/m3 | OSHA P0 |
| | | TWA (Inhal- able particu- late matter) | 10 mg/m3 (Calcium) | ACGIH |
| Gypsum (Ca(SO4).2H2O) | 13397-24-5 | TWA value (Inhalable fraction) | 10 mg/m3 | ACGIHTLV |
| | | REL value (Respirable) | 5 mg/m3 | NIOSH |
| | | REL value (Total) | 10 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) | 15 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 (Respirable) | 5 mg/m3 | NIOSH REL |



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| TWA (total dust) 15 mg/m3 OSHA Z-1 | 1 | ı | T) (/ / / / / / / / / / / / / / / / / / | 1.40 | LNIOCUERT |
|--|-----------------------------|-------------|--|--------------|-----------|
| dust) | | | TWA (total) | 10 mg/m3 | NIOSH REL |
| TWA (respirable fraction) TWA (rotal dust) TWA (rotal able particulate matter) TWA (inhalable particulate matter) TWA (able particulate matter) TWA value (respirable dust) TWA (respirable du | | | , | 15 mg/ms | USHA Z-1 |
| Abble fraction TWA (Total dust) 15 mg/m3 OSHA PO | | | | 5 mg/m3 | OSHA 7-1 |
| TWA (Total dust) TWA (respirable dust fraction) TWA (respirable dust fraction) TWA (respirable dust fraction) TWA (respirable dust) TWA value (Respirable fraction) TWA value (Respirable dust) TWA value (Respirable dust) TWA value (Respirable dust) TWA (respirable dust) TW | | | | 3 mg/m3 | OSHA Z-1 |
| | | | | 15 mg/m3 | OSHA PO |
| TWA (respirable dust fraction) | | | | 10 1119/1110 | 0011/110 |
| Able dust fraction TWA (Inhalable particulate matter) TWA (Inhalable particulate matter) TWA value (Respirable fraction) TWA value (Respirable fraction) TWA value (Respirable dust) TWA | | | | 5 mg/m3 | OSHA PO |
| Truck (Inhalable particulate matter) | | | | 0 1119/1110 | 001 |
| TWA (Inhalable particulate matter) | | | | | |
| Able particulate matter Calcium AcGIHTLV | | | | 10 mg/m3 | ACGIH |
| late matter) | | | | | |
| Quartz (SiO2) 14808-60-7 TWA value (Respirable fraction) 0.025 mg/m3 (Respirable dust) ACGIHTLV TWA value 0.05 mg/m3 (Respirable dust) 29 CFR 1910.1001-1050 OSHA Action level 0.025 mg/m3 (Respirable dust) 29 CFR 1910.1001-1050 REL value (Respirable dust) 0.05 mg/m3 (Respirable dust) NIOSH TWA (Respirable dust) 10 mg/m3 / SiO2+2 OSHA Z-3 TWA (respirable dust) 10 mg/m3 / SiO2+2 OSHA Z-3 TWA (respirable particulate matter) 0.1 mg/m3 OSHA PO OSHA PO TWA (Respirable particulate matter) 0.05 mg/m3 (Silica) ACGIH Cement, portland, chemicals 65997-15-1 TWA (Respirable fraction) 1 mg/m3 OSHA CARC REL value (Respirable) REL value (Respirable) 1 mg/m3 NIOSH ACGIHTLV REL value (Respirable) 5 mg/m3 NIOSH PEC (Total dust) 5 mg/m3 NIOSH PEL (Total dust) 15 mg/m3 OSHA CARC 15 mg/m3 OSHA CARC PEL (Respirable) 5 mg/m3 NIOSH 15 mg/m3 OSHA CARC PEL (Respirable) 5 mg/m3 NIOSH 15 mg/m3 OSHA CARC PEL (Respirable) 15 mg/m3 OSHA CARC | | | | | |
| TWA value | Quartz (SiO2) | 14808-60-7 | (Respirable | 0.025 mg/m3 | ACGIHTLV |
| CSHA Action Level CRespirable dust) Level CRespirable dust Level CRESPIRABLE | | | | 0.05 mg/m3 | 29 CFR |
| OSHA Action level CSHA (Respirable dust) CSHA (Respirable) CSHA (Respirable dust) CSHA (Respirable) CSHA (Respirable) CSHA (Respirable) CSHA (Respirable dust) CSHA (Respirable) CSHA (RESPIRAB | | | | | |
| OSHA Action level | | | | (| |
| Ievel | | | OSHA Action | 0.025 ma/m3 | |
| (Respirable dust) | | | | | |
| Respirable dust) | | | REL value | 0.05 mg/m3 | NIOSH |
| TWA (Respirable dust) | | | | | |
| Dirable dust TWA (respirable) TWA (respirable) SiO2+2 TWA (respirable) SiO2+2 TWA (respirable) SiO2+5 TWA (respirable) SiO2+5 TWA (respirable dust fraction) TWA (Respirable particulate matter) TWA (Respirable particulate matter) TWA (Respirable dust) TWA value (Respirable fraction) REL value (Respirable dust) TWA value (Respirable fraction) TWA value (Respirable fraction) REL value (Respirable) TWA value (Re | | | | 0.05 / 0 | 00114.7.4 |
| TWA (respirable) | | | | 0.05 mg/m3 | OSHA Z-1 |
| able %SiO2+2 | | | | 10 mg/m3 / | OSHA Z-3 |
| able %SiO2+5 TWA (respirable dust fraction) TWA (Respirable particulate matter) PEL (respirable dust) Silica | | | able) | | |
| TWA (respirable dust fraction) | | | TWA (respir- | 250 mppcf / | OSHA Z-3 |
| able dust fraction) TWA (Respirable particulate matter) PEL (respirable) TWA (Respirable dust) TWA (Respirable dust) Cement, portland, chemicals 65997-15-1 REL value (Respirable fraction) REL value (Respirable) REL (Total) REL (Total) REL (Total) Serior Serior ACGIH NIOSH NIOSH PEL (Total) Graphical dust) PEL (Respirable) PEL (Respirable) PEL (Respirable) Serior Se | | | | %SiO2+5 | |
| fraction) TWA (Respirable particulate matter) 0.025 mg/m3 (Silica) ACGIH PEL (respirable particulate matter) 0.05 mg/m3 (Silica) OSHA CARC TWA (Respirable) 0.05 mg/m3 (Silica) NIOSH REL Cement, portland, chemicals 65997-15-1 TWA value (Respirable fraction) 1 mg/m3 ACGIHTLV REL value (Total) (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 (Respir- 5 mg/m3 29 CFR | | | | 0.1 mg/m3 | OSHA P0 |
| TWA (Respirable particulate matter) PEL (respirable) TWA (Respirable) PEL (respirable) TWA (Respirable) TWA (Respirable) TWA (Respirable) TWA value (Respirable) REL value (Total) REL value (Respirable) REL (Total dust) PEL (Respir- 5 mg/m3 ACGIH NIOSH ACGIH | | | able dust | | |
| pirable particulate matter) PEL (respirable) TWA (Respirable dust) Cement, portland, chemicals 65997-15-1 REL value (Total) REL value (Respirable) | | | | | |
| ticulate matter) PEL (respirable) TWA (Respirable dust) (Silica) Cement, portland, chemicals 65997-15-1 TWA value (Respirable fraction) REL value (Total) (Respirable) REL value (Respirable) (Respirable) REL value (Respirable) (Respirable) PEL (Total dust) PEL (Respirable) | | | | | ACGIH |
| ter) PEL (respirable) 0.05 mg/m3 OSHA CARC TWA (Respirable dust) 0.05 mg/m3 NIOSH REL Cement, portland, chemicals 65997-15-1 TWA value (Respirable fraction) 1 mg/m3 ACGIHTLV 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 (Respir- 5 mg/m3 29 CFR | | | | (Silica) | |
| PEL (respirable) | | | | | |
| able TWA (Respirable dust) Cement, portland, chemicals 65997-15-1 TWA value (Respirable fraction) REL value (Total) Total (Respirable) FEL (Total dust) Total (Respirable) Total (| | | | | |
| TWA (Respirable dust) 0.05 mg/m3 (Silica) NIOSH REL Cement, portland, chemicals 65997-15-1 TWA value (Respirable fraction) 1 mg/m3 ACGIHTLV 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 (Respir- 5 mg/m3) 29 CFR | | | | 0.05 mg/m3 | OSHA CARC |
| Dirable dust) (Silica) Cement, portland, chemicals 65997-15-1 TWA value (Respirable fraction) REL value (Total) Twalue (Total) Twalue (Total) Twalue (Total) Twalue (Total) Twalue (Total) Twalue (Respirable) Twalue (Respirable) Twalue (Respirable) Twalue (Respirable) Twalue (Respirable) Twalue (Total dust) Twalue (Tot | | 1 | | | |
| Cement, portland, chemicals 65997-15-1 TWA value (Respirable fraction) REL value (Total) REL value (Respirable) REL value (Respirable) PEL (Total dust) PEL (Respir- 5 mg/m3 ACGIHTLV ACGIHTLV ACGIHTLV NIOSH NIOSH 15 mg/m3 29 CFR 1910.1000 (Table Z-1) PEL (Respir- 5 mg/m3 29 CFR | | | | | NIOSH REL |
| (Respirable fraction) REL value (Total) 10 mg/m3 NIOSH REL value (Total) 5 mg/m3 NIOSH PEL (Total dust) 15 mg/m3 29 CFR 1910.1000 (Table Z-1) PEL (Respir- 5 mg/m3 29 CFR | | 1.5505 :5 : | | | 1.000 |
| 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 (Respir- 5 mg/m3 29 CFR | Cement, portland, chemicals | 65997-15-1 | | 1 mg/m3 | ACGIHTLV |
| 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) 15 mg/m3 29 CFR | | | | | |
| (Total) REL value (Respirable) 5 mg/m3 NIOSH PEL (Total dust) 15 mg/m3 29 CFR 1910.1000 (Table Z-1) PEL (Respir- 5 mg/m3 29 CFR | | - | | 10 / 0 | NIOOL: |
| REL value (Respirable) 5 mg/m3 NIOSH PEL (Total dust) 15 mg/m3 29 CFR 1910.1000 (Table Z-1) PEL (Respir- PEL (Respir- Section 15 mg/m3) 29 CFR | | | | 10 mg/m3 | NIOSH |
| PEL (Total dust) 15 mg/m3 29 CFR 1910.1000 (Table Z-1) PEL (Respir- 5 mg/m3 29 CFR | | | | 5 mg/m3 | NIOSH |
| dust) 1910.1000 (Table Z-1) PEL (Respir- 5 mg/m3 29 CFR | | | | 15 mg/m3 | 29 CFR |
| PEL (Respir- 5 mg/m3 29 CFR | | | , | ,g,g | |
| PEL (Respir- 5 mg/m3 29 CFR | | | , | | |
| | | | PEL (Respir- | 5 mg/m3 | |
| | | | able fraction) | J | 1910.1000 |



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| TWA value (Total dust) TWA value 5 mg/m3 (Respirable fraction) TWA value 50 millions o | (Table Z-1) 29 CFR 1910.1000 (Table Z-1-A) 29 CFR |
|--|---|
| (Total dust) TWA value 5 mg/m3 (Respirable fraction) TWA value 50 millions o | 1910.1000 (Table Z-1-A) |
| TWA value 5 mg/m3 (Respirable fraction) TWA value 50 millions of | (Table Z-1-A) |
| TWA value 5 mg/m3 (Respirable fraction) TWA value 50 millions of | |
| (Respirable fraction) TWA value 50 millions of | |
| (Respirable fraction) TWA value 50 millions o | |
| fraction) TWA value 50 millions o | 1910.1000 |
| TWA value 50 millions o | (Table Z-1-A) |
| | , , |
| particles per | |
| foot of air | (Table Z-3) |
| TWA (Res- 1 mg/m3 | ACGIH |
| pirable par- | |
| ticulate mat- | |
| ter) | |
| TWA (Res- 5 mg/m3 | NIOSH REL |
| pirable) | 11.00.11122 |
| TWA (total) 10 mg/m3 | NIOSH REL |
| TWA (total 15 mg/m3 | OSHA Z-1 |
| dust) | 0011/12 |
| TWA (respir- 5 mg/m3 | OSHA Z-1 |
| able fraction) | JOHAZI |
| TWA (Total 10 mg/m3 | OSHA P0 |
| dust) | 0011/110 |
| TWA (respir- 5 mg/m3 | OSHA P0 |
| able dust | 0011/110 |
| fraction) | |
| TWA (Dust) 50 Million pa | arti- OSHA Z-3 |
| cles per cubi | |
| Quartz (SiO2) 14808-60-7 TWA value 0.025 mg/m3 | |
| (Respirable | 7.00 |
| fraction) | |
| REL value 0.05 mg/m3 | NIOSH |
| (Respirable | 1 |
| dust) | |
| TWÁ value 0.05 mg/m3 | 29 CFR |
| (Respirable of | |
| | 1050 |
| OSHA Action 0.025 mg/m3 | |
| level (Respirable of | |
| | 1050 |
| TWA (Res- 0.05 mg/m3 | |
| pirable dust) | |
| TWA (respir- 10 mg/m3 / | OSHA Z-3 |
| | |
| able) %SiO2+2 | OSHA Z-3 |
| TWA (respir- 250 mppcf / | |
| | 1 |
| TWA (respir- 250 mppcf / | OSHA P0 |
| TWA (respirable) 250 mppcf / %SiO2+5 | OSHA P0 |
| TWA (respirable) 250 mppcf / %SiO2+5 TWA (respirable) 70.1 mg/m3 | OSHA P0 |
| TWA (respirable) 250 mppcf / %SiO2+5 TWA (respirable dust 250 mppcf / %SiO2+5 TWA (respirable dust 250 mppcf / %SiO2+5 | |
| TWA (respirable) 250 mppcf / %SiO2+5 TWA (respirable dust fraction) 0.1 mg/m3 | |
| TWA (respirable) 250 mppcf / %SiO2+5 TWA (respirable dust fraction) TWA (Res- 0.025 mg/m3 | |
| TWA (respirable) TWA (respirable) TWA (respirable dust fraction) TWA (Respirable par- (Silica) | |



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able)
TWA (Respirable dust) (Silica)

NIOSH REL

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 con-

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

pH : 13 (68 °F / 20 °C)

(as aqueous solution)

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.

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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/m3

Solubility(ies)

Water solubility : insoluble (59 °F / 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 pre-

scribed/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

Sublimation point : No applicable information available.

Molecular weight : No data available

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 reac- : No decomposition if stored and applied as directed.

tions

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-live is unlikely.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

May cause cancer.

Reproductive toxicity

Not classified based on available information.

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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

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

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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- : GLP: no

octanol/water Remarks: not applicable

calcium oxide:

Partition coefficient: n-

octanol/water

Remarks: The value has not been determined because the

substance is inorganic.

Quartz (SiO2):

Partition coefficient: n-

octanol/water

Remarks: not applicable

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-

GLP: no

octanol/water

Remarks: The value has not been determined because the

substance is inorganic.

Gypsum (Ca(SO4).2H2O):

Partition coefficient: n-

octanol/water

Remarks: The value has not been determined because the

substance is inorganic.

Mobility in soil

Product:

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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.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Dispose of in accordance with national, state and local regula-

tions.

Do not discharge into drains/surface waters/groundwater.

: Contaminated packaging should be emptied as far as possible

and disposed of in the same manner as the sub-

stance/product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

Contaminated packaging

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR



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Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

US State Regulations

Pennsylvania Right To Know

| calcium oxide | 1305-78-8 |
|-----------------------------|------------|
| Iron oxide | 1309-37-1 |
| magnesium oxide | 1309-48-4 |
| Limestone | 1317-65-3 |
| Silicon dioxide | 7631-86-9 |
| Calcium sulphate | 7778-18-9 |
| Gypsum (Ca(SO4).2H2O) | 13397-24-5 |
| Quartz (SiO2) | 14808-60-7 |
| Cement, portland, chemicals | 65997-15-1 |
| Quartz (SiO2) | 14808-60-7 |
| | |

New Jersey Right To Know

| calcium oxide | 1305-78-8 |
|-----------------------------|------------|
| magnesium oxide | 1309-48-4 |
| Limestone | 1317-65-3 |
| Calcium sulphate | 7778-18-9 |
| Cement, portland, chemicals | 65997-15-1 |
| Quartz (SiO2) | 14808-60-7 |

California Prop. 65

WARNING: This product can expose you to chemicals including Quartz (SiO2), which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

The ingredients of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

TSCA : All chemical substances in this product are either listed as

active on the TSCA Inventory or are in compliance with a

TSCA Inventory exemption.

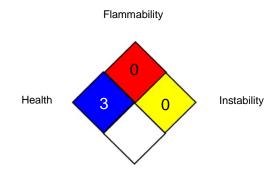
SECTION 16. OTHER INFORMATION

Further information

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NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

29 CFR 1910.1000 (Table Z- : OSHA - Table Z-1-A (29 CFR 1910.1000)

1-A)

29 CFR 1910.1000 (Table Z- : OSHA - Table Z-1 (Limits for Air Contaminants) 29 CFR

1910.1000

29 CFR 1910.1000 (Table Z- : OSHA Table Z-3 (Mineral Dusts) 29 CFR 1910.1000

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)

NIOSH : NIOSH Pocket Guide to Chemical Hazards (US)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA CARC : OSHA Specifically Regulated Chemicals/Carcinogens
OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

1910.1000

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Min-

eral Dusts

29 CFR 1910.1000 (Table Z- : Time Weighted Average (TWA):

1-A) / TWA value

29 CFR 1910.1000 (Table Z- : Permissible exposure limit

1) / PEL

29 CFR 1910.1000 (Table Z- : Time Weighted Average (TWA):

3) / TWA value

29 CFR 1910.1001-1050 / : OSHA Action level:

OSHA Action level

29 CFR 1910.1001-1050 / : Time Weighted Average (TWA):

TWA value

ACGIH / TWA : 8-hour, time-weighted average
ACGIHTLV / TWA value : Time Weighted Average (TWA):
NIOSH / REL value : Recommended exposure limit (REL):

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NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

OSHA CARC / PEL : Permissible exposure limit (PEL)
OSHA P0 / TWA : 8-hour time weighted average
OSHA Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

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