

# MasterFlow 110AN

Version **Revision Date:** SDS Number: Date of last issue: 08/14/2020 01/10/2021 000000260288 Date of first issue: 08/14/2020 1.1

### **SECTION 1. IDENTIFICATION**

Product name MasterFlow 110AN

Product code 00000000051707053 00000000051707053

Manufacturer or supplier's details

Company name of supplier Master Builders-Construction Systems

US, LLC

Address : 23700 CHAGRIN BLVD

Beachwood OH 44122

ChemTel: +1-813-248-0585 Emergency telephone

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 Category 1

Serious eye damage Category 1

Carcinogenicity (Inhalation) Category 1A

Specific target organ toxicity

- single exposure

Category 3 (Respiratory system)

Specific target organ toxicity

- repeated exposure (Inhala-

tion)

Category 1 (Lungs)

Specific target organ toxicity - repeated exposure (Inhala-

tion)

Category 2 (Kidney, Immune system)

#### **GHS** label elements

Hazard pictograms







Signal Word Danger

**Hazard Statements** H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

H350 May cause cancer by inhalation.

H372 Causes damage to organs (Lungs) through prolonged or

repeated exposure if inhaled.

H373 May cause damage to organs (Kidney, Immune system)

through prolonged or repeated exposure if inhaled.

### **Precautionary Statements**

#### Prevention:

P201 Obtain special instructions before use.

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

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

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

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

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

## Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

### Storage:

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

P405 Store locked up.

#### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

# Other hazards

In combination with water, repeated or prolonged dermal exposure can cause moderate to severe alkali burns.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
crystalline silica	14808-60-7	>= 50 - < 70
Cement, portland, chemicals	65997-15-1	>= 20 - < 30
Cement, alumina, chemicals	65997-16-2	>= 10 - < 20



# MasterFlow 110AN

Version Revision Date: SDS Number: Date of last issue: 08/14/2020 1.1 01/10/2021 000000260288 Date of first issue: 08/14/2020

Gypsum (Ca(SO4).2H2O)	13397-24-5	>= 1 - < 5
Silicon dioxide	7631-86-9	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

#### **SECTION 4. FIRST AID MEASURES**

General advice : First aid personnel should pay attention to their own safety.

If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).

Immediately remove contaminated clothing.

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 : Keep patient calm, remove to fresh air, seek medical atten-

tion.

Immediately administer a corticosteroid from a con-

trolled/metered dose inhaler.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : Immediately wash thoroughly with plenty of water, apply ster-

ile dressings, consult a skin specialist.

If skin irritation persists, call a physician.

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Immediately wash affected eyes for at least 15 minutes under

running water with eyelids held open, consult an eye special-

ıst.

Small amounts splashed into eyes can cause irreversible tis-

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 : Immediately rinse mouth and then drink 200-300 ml of water,

seek medical attention.

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.



# MasterFlow 110AN

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

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.

Notes to physician : Treat symptomatically.

### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media : Water spray

Foam Dry powder

Carbon dioxide (CO2)

Unsuitable extinguishing

media

High volume water jet

Specific hazards during fire

fighting

courses.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

Do not allow run-off from fire fighting to enter drains or water

be disposed of in accordance with local regulations.

Special protective equipment:

for fire-fighters

Wear self-contained breathing apparatus for firefighting if nec-

essary.

### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protec: :

tive equipment and emer-

gency procedures

Use personal protective equipment.

Avoid dust formation. Avoid breathing dust.

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.

# **MBCC** GROUP

# MasterFlow 110AN

Version Revision Date: SDS Number: Date of last issue: 08/14/2020 1.1 01/10/2021 000000260288 Date of first issue: 08/14/2020

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 data available

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

# Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Calcium dihydroxide	1305-62-0	TWA value	5 mg/m3	ACGIHTLV
		REL value	5 mg/m3	NIOSH
		PEL (Respir-	5 mg/m3	29 CFR
		able fraction)		1910.1000
				(Table Z-1)
		PEL (Total	15 mg/m3	29 CFR
		dust)		1910.1000
				(Table Z-1)
		TWA value	5 mg/m3	29 CFR
				1910.1000
				(Table Z-1-A)
		TWA	5 mg/m3	ACGIH
		TWA	5 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respir-	5 mg/m3	OSHA Z-1
		able fraction)		
		TWA	5 mg/m3	OSHA P0
Limestone	1317-65-3	REL value	5 mg/m3	NIOSH
		(Respirable)		
		REL value	10 mg/m3	NIOSH
		(Total)		
		PEL (Respir-	5 mg/m3	29 CFR



# **MasterFlow 110AN**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

			•	
		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 (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 (Respirable)	5 mg/m3 (Calcium car- bonate)	NIOSH REL
		TWA (total)	10 mg/m3 (Calcium car- bonate)	NIOSH REL
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
		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



# **MasterFlow 110AN**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
		TWA (Inhal- able particu- late matter)	10 mg/m3 (Calcium)	ACGIH
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 (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 (Respirable particulate matter)	1 mg/m3	ACGIH
		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)	10 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
		TWA (Dust)	50 Million parti- cles per cubic foot	OSHA Z-3
crystalline silica	14808-60-7	TWA value (Respirable fraction)	0.025 mg/m3	ACGIHTLV
		REL value (Respirable dust)	0.05 mg/m3	NIOSH
		TWA value	0.05 mg/m3 (Respirable dust)	29 CFR 1910.1001-



# MasterFlow 110AN

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

		1050
OSHA Action level	0.025 mg/m3 (Respirable dust)	29 CFR 1910.1001- 1050
TWA (Res- pirable dust)	0.05 mg/m3	OSHA Z-1
TWA (respir- able)	10 mg/m3 / %SiO2+2	OSHA Z-3
TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH
PEL (respir- able)	0.05 mg/m3	OSHA CARC
TWA (Respirable dust)	0.05 mg/m3 (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.



# **MasterFlow 110AN**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : powder

Color : gray

Odor : odorless

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

pH : approx. 12

(as aqueous suspension)

Melting point : No applicable information available.

boiling temperature : No data 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 : 2.6

Bulk density : 1,800 - 2,400 kg/m3

Solubility(ies)

Water solubility : dispersible

Solubility in other solvents : No applicable information available.

Partition coefficient: n-

octanol/water

No applicable information available.

Autoignition temperature : No applicable information available.

# **MBCC** GROUP

# MasterFlow 110AN

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

Decomposition temperature : No decomposition if stored and handled as pre-

scribed/indicated.

Viscosity

Viscosity, dynamic : No data available.

Viscosity, kinematic : No applicable information available.

Explosive properties : Not explosive

Not explosive

Oxidizing properties : Based on its structural properties the product is not classified

as oxidizing.

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-

tions

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.

### **SECTION 11. TOXICOLOGICAL INFORMATION**

#### **Acute toxicity**

Not classified based on available information.

**Product:** 

Acute oral toxicity : Remarks: No applicable information available.

Acute inhalation toxicity : Remarks: No applicable information available.

Acute dermal toxicity : Remarks: No applicable information available.



# MasterFlow 110AN

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

#### Skin corrosion/irritation

Causes skin irritation.

**Product:** 

Remarks : Extremely corrosive and destructive to tissue.

## Serious eye damage/eye irritation

Causes serious eye damage.

**Product:** 

Remarks : May cause irreversible 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

Not classified based on available information.

IARC Group 1: Carcinogenic to humans

Silicon dioxide 7631-86-9

(Silica dust, crystalline)

Group 1: Carcinogenic to humans

Quartz (SiO2) 14808-60-7

(Silica dust, crystalline)

**OSHA** OSHA specifically regulated carcinogen

Quartz (SiO2) 14808-60-7

(crystalline silica)

NTP Known to be human carcinogen

Silicon dioxide 7631-86-9

(Silica, Crystalline (Respirable Size)) Known to be human carcinogen

Quartz (SiO2) 14808-60-7

(Silica, Crystalline (Respirable Size))

# Reproductive toxicity

Not classified based on available information.

# STOT-single exposure

May cause respiratory irritation.



# MasterFlow 110AN

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

# STOT-repeated exposure

Not classified based on available information.

# **Aspiration toxicity**

Not classified based on available information.

#### **Further information**

**Product:** 

Remarks : No data available

#### **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 for inorganic substances.

### **Bioaccumulative potential**

**Product:** 

Bioaccumulation : Remarks: The product will not be readily bioavailable due to

its consistency and insolubility in water.

### 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:**

Additional ecological infor-

mation

: There is a high probability that the product is not acutely

harmful to aquatic organisms.

The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual

components.



# MasterFlow 110AN

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

#### **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 : 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

#### **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**

Not regulated as a dangerous good

## **SECTION 15. REGULATORY INFORMATION**

### **EPCRA - Emergency Planning and Community Right-to-Know**

### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

### **US State Regulations**

### Pennsylvania Right To Know

crystalline silica	14808-60-7
Cement, portland, chemicals	65997-15-1
Cement, alumina, chemicals	65997-16-2
Gypsum (Ca(SO4).2H2O)	13397-24-5
sodium sulphate	7757-82-6

#### **New Jersey Right To Know**

crystalline silica	14808-60-7
Cement, portland, chemicals	65997-15-1
Cement, alumina, chemicals	65997-16-2
Gypsum (Ca(SO4).2H2O)	13397-24-5
Quartz (SiO2)	14808-60-7
Lithium carbonate	554-13-2

### 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, and

Lithium carbonate, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

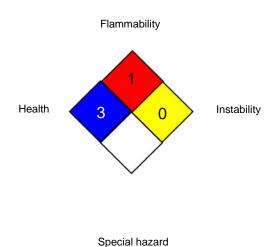
### The ingredients of this product are reported in the following inventories:

TSCA : On the inventory, or in compliance with the inventory

### **SECTION 16. OTHER INFORMATION**

#### **Further information**

#### NFPA 704:



#### 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)

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 08/14/2020

 1.1
 01/10/2021
 000000260288
 Date of first issue: 08/14/2020

1910.1000

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

1)

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):

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



Version Revision Date: SDS Number: Date of last issue: 08/14/2020 1.1 01/10/2021 000000260288 Date of first issue: 08/14/2020

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

Revision Date : 01/10/2021

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED. ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

US / EN