

# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

#### **SECTION 1. IDENTIFICATION**

Product name : MasterSeal 581 prl gry

Product code : 00000000050354711 00000000050354711

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

Recommended use of the chemical and restrictions on use

Recommended use : Product for construction chemicals

Restrictions on use : Reserved for industrial and professional use.

National Emergency Telephone Number : USA: +1-800-255-3924 ChemTel contract no. MIS9240420

#### **SECTION 2. HAZARDS IDENTIFICATION**

# GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin irritation : Category 2

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

# **MBCC** GROUP

# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

Hazard Statements : H315 Causes skin irritation.

H318 Causes serious eye damage. H335 May cause respiratory irritation. 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/ vapors/ 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:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

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.

P332 + P313 If skin irritation occurs: Get medical advice/ atten-

tion.

P362 Take off contaminated clothing and wash 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)



# MasterSeal 581 prl gry

Version Revision Date: SDS Number: Date of last issue: 07/19/2021
1.1 07/19/2021 000000261456 Date of first issue: 07/19/2021

Cement, portland, chemicals	65997-15-1	>= 30 - < 50
crystalline silica	14808-60-7	>= 30 - < 50
Calcium dihydroxide	1305-62-0	>= 1 - < 5
Titanium dioxide	13463-67-7	>= 1 - < 5

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.

Remove contaminated clothing.

If inhaled : After inhalation of dust.

Keep patient calm, remove to fresh air.

If difficulties occur: Seek medical attention.

In case of skin contact : After contact with skin, wash immediately with plenty of water

and soap.

Under no circumstances should organic solvent be used.

If irritation develops, seek medical attention.

In case of eye contact : Hold eyes open and rinse slowly and gently with water for 15

to 20 minutes. Remove contact lenses, if present, after first 5

minutes, then continue rinsing.

If eye irritation persists, consult a specialist.

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

seek medical attention.

Do not induce vomiting unless told to by a poison control cen-

ter or doctor.

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.
Causes skin irritation.
Causes serious eye damage.

May cause respiratory irritation. May cause cancer by inhalation.

Causes damage to organs through prolonged or repeated

exposure if inhaled.

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

Suitable extinguishing media : Foam

Water spray Dry powder

Carbon dioxide (CO2)

Product itself is non-combustible. Only the packaging materials can catch fire. The extinguishing agents normally used are

sufficient.



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

Unsuitable extinguishing

media

water jet

Specific hazards during fire

fighting

Product is not combustible or explosive.

Exposure to decomposition products may be a hazard to

health.

Hazardous combustion prod: :

ucts

harmful vapours

Further information : Product itself is non-combustible; fire extinguishing method of

surrounding areas must be considered.

The degree of risk is governed by the burning substance and

the fire conditions.

Dispose of fire debris and contaminated extinguishing water in

accordance with official regulations.

Special protective equipment :

for fire-fighters

Wear self-contained breathing apparatus and chemical-

protective clothing.

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

Personal precautions, protec: :

tive equipment and emer-

gency procedures

Avoid dust formation.

Avoid contact with skin and eyes. Use personal protective clothing.

Handle in accordance with good building materials hygiene

and safety practice.

Environmental precautions : Do not discharge into drains/surface waters/groundwater.

Methods and materials for

containment and cleaning up

Sweep up and shovel into suitable containers for disposal.

Avoid dust formation.
Rinse with plenty of water.

Keep in suitable, closed containers for disposal.

# **SECTION 7. HANDLING AND STORAGE**

Advice on protection against :

fire and explosion

No special precautions necessary.

Advice on safe handling : Avoid dust formation.

Avoid inhalation of dusts.

Avoid contact with skin and eves.

The Cement contained in this product reacts alkaline when in contact with water or humidity. This may cause severe irritation of skin or mucous membranes. The humidity of the skin or mucous membranes is enough for this reaction. Prolonged direct contact to the dry product should be avoided therefore. Pour downwind and allow as little free fall as possible while

emptying bags into equipment.

Breathing must be protected when large quantities are de-

canted without local exhaust ventilation.



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

Further information on stor-

age conditions

Containers should be stored tightly sealed in a dry place.

Materials to avoid : No applicable information 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	15 mg/m3	OSHA Z-1
		dust)		
		TWA (respir-	5 mg/m3	OSHA Z-1
		able fraction)		
		TWA	5 mg/m3	OSHA P0
calcium oxide	1305-78-8	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 (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 (Inhal-	10 mg/m3	ACGIH
		able particu-		
		late matter)		
		TWA (fume,	15 mg/m3	OSHA Z-1



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

İ	1	total particu-	1	1
		late)		
		TWA (Fume - total particu- late)	10 mg/m3	OSHA P0
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 (respir- able 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 (Res- pirable)	5 mg/m3	NIOSH REL
		TWA (total) TWA (total	10 mg/m3 15 mg/m3	NIOSH REL OSHA Z-1
		dust) TWA (respir-	5 mg/m3	OSHA Z-1
		able fraction)	J	
		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
Titanium dioxide	13463-67-7	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (Total	10 mg/m3	OSHA P0



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

		dust)		
		TWÁ	10 mg/m3 (Titanium dioxide)	ACGIH
Quartz (SiO2)	14808-60-7	TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1
		TWA (respirable)	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
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 (Res- pirable)	5 mg/m3	NIOSH REL
		TWA (total) TWA (total dust)	10 mg/m3 15 mg/m3	NIOSH REL OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total	10 mg/m3	OSHA P0



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

dust)		
TWA (respirable dust fraction)	5 mg/m3	OSHA P0
TWA (Dust)	50 Million parti- cles per cubic foot	OSHA Z-3

**Engineering measures** : No applicable information available.

Personal protective equipment

Respiratory protection : Breathing protection if dusts are formed.

Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection

Remarks : Chemical resistant protective gloves Manufacturer's direc-

tions for use should be observed because of great diversity of

types.

Eye protection : Tightly fitting safety goggles (chemical goggles).

Skin and body protection : Body protection must be chosen based on level of activity

and exposure.

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, drink or smoke.

Hands and/or face should be washed before breaks and at

the end of the shift.

At the end of the shift the skin should be cleaned and skin-

care agents applied.

Gloves must be inspected regularly and prior to each use.

Replace if necessary (e.g. pinhole leaks).

Remove contaminated clothing immediately and clean before

re-use or dispose it if necessary.

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

Appearance : powder

Color : various colours

Odor : earthy

pH : slightly alkaline



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

Melting temperature : No data available

Boiling point : No applicable information available.

Flash point : Not applicable

Evaporation rate : No applicable information available.

Flammability (solid, gas) : not determined

Self-ignition : not self-igniting

Upper explosion limit / Upper

flammability limit

No applicable information available.

Lower explosion limit / Lower

flammability limit

No applicable information available.

Vapor pressure : No applicable information available.

Relative vapor density : No applicable information available.

Relative density : 2.70

Density : Not applicable

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

Solubility(ies)

Water solubility : No data available

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 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



# MasterSeal 581 prl gry

Version Revision Date: SDS Number: Date of last issue: 07/19/2021
1.1 07/19/2021 000000261456 Date of first issue: 07/19/2021

Sublimation point : No applicable information available.

Molecular weight : No applicable information available.

**SECTION 10. STABILITY AND REACTIVITY** 

Reactivity : No hazardous reactions if stored and handled as pre-

scribed/indicated.

Chemical stability : The product is stable if stored and handled as pre-

scribed/indicated.

Possibility of hazardous reac-

tions

Strong bases are formed on the addition of water. The product is stable if stored and handled as pre-

scribed/indicated.

Conditions to avoid : Avoid dust formation.

Avoid humidity.

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. 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.

#### Skin corrosion/irritation

Causes skin irritation.
Causes skin irritation.

### Serious eye damage/eye irritation

Causes serious eye damage. Causes serious eye damage.

# Respiratory or skin sensitization

### Skin sensitization

Not classified based on available information.



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

#### Skin sensitization

Not classified based on available information.

# Respiratory 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. Not classified based on available information.

# Carcinogenicity

May cause cancer.

May cause cancer by inhalation.

### Reproductive toxicity

Not classified based on available information.

Not classified based on available information.

# STOT-single exposure

May cause respiratory irritation.

May cause respiratory irritation.

# STOT-repeated exposure

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

Causes damage to organs (Lung, Kidney, Immune system) through prolonged or repeated exposure if inhaled.

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

May cause damage to organs (Kidney, Immune system) through prolonged or repeated exposure if inhaled.

# **Aspiration toxicity**

Not classified based on available information.

Not classified based on available information.

#### **Experience with human exposure**

#### **Product:**

Skin contact : Remarks: In combination with water, repeated or prolonged

dermal exposure can cause moderate to severe alkali burns.

#### **Further information**

### **Product:**

Remarks : Health injuries are not known or expected under normal use.

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

components.



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

#### **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

Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxi-

cology have been derived from the properties of the individual

components.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

# **Disposal methods**

Waste from residues : Dispose of in accordance with local authority regulations.

Do not discharge into drains/surface waters/groundwater.

Contaminated packaging : Completely emptied packagings can be given for recycling.

Packs that cannot be cleaned should be disposed of in the

same manner as the contents.



# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

#### **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**

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

DSL : This product contains one or more components not listed on

the Canadian DSL or NDSL. All other components are on the

Canadian DSL.

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

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

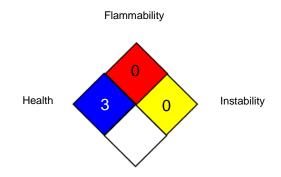
### **Further information**

# MasterSeal 581 prl gry

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 07/19/2021

 1.1
 07/19/2021
 000000261456
 Date of first issue: 07/19/2021

#### 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)

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

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



# MasterSeal 581 prl gry

Version Revision Date: SDS Number: Date of last issue: 07/19/2021 1.1 07/19/2021 000000261456 Date of first issue: 07/19/2021

AIIC - Australian Inventory of Industrial Chemicals; 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

Revision Date : 07/19/2021

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN