

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 05/13/2019

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3.2. **Mixtures**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS-US classification
Crystalline silica	(CAS-No.) 14808-60-7	0.45 - 1.4	Carc. 1A, H350 STOT RE 1, H372
Titanium dioxide	(CAS-No.) 13463-67-7	0.09 - 0.7	Carc. 2, H351

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures	
4.1. Description of first aid measure	es
First-aid measures general	: IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell. Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
4.2. Most important symptoms and No additional information available	effects (acute and delayed)
	ad an axial transforment if passages
Treat symptomatically.	nd special treatment, if necessary
	x 00
SECTION 5: Fire-fighting measu	
5.1. Suitable (and unsuitable) exting	
Suitable extinguishing media	: Water spray. Dry powder. Foam.
5.2. Specific hazards arising from t	he chemical
No additional information available	
5.3. Special protective equipment a	ind precautions for fire-fighters
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release r	neasures
6.1. Personal precautions, protectiv	ve equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment. Notify au	thorities if product enters sewers or public waters.
6.3. Methods and material for conta	ainment and cleaning up
Methods for cleaning up	: Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and storage	<u>ــــــــــــــــــــــــــــــــــــ</u>
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Obtain special instructions before use. Do not
	handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
05/17/2019	EN (English US) 2/7

Safety Data Sheet

Control paran

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

0 4

: Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

Crystalline silica (1	14808-60-7)	
ACGIH	Local name	Silica crystaline - quartz
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (Respirable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO2+5)) for mppcf and (10 mg/m3 / (%SiO2+2)) for mg/m3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
Titanium dioxide (13463-67-7)	
ACGIH	Local name	Titanium dioxide
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	Remark (ACGIH)	TLV® Basis: LRT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m³
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Appropriate engineering controls 8.2.

Appropriate engineering controls

: Ensure good ventilation of the work station. Environmental exposure controls

: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

SECTION 9: Physical and chemical properties			
9.1. Information on basic physic	9.1. Information on basic physical and chemical properties		
Physical state	: Solid		
Color	: Colourless to white-grey		
Odor	: Almost odourless		
Odor threshold	: No data available		
рН	: No data available		
Melting point	: No data available		
Freezing point	: Not applicable		
Boiling point	: No data available		
Flash point	: Not applicable		
05/17/2019	EN (English US)	3/7	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 2.53
Solubility	: Water: < 0.1 %
Log Pow	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability a	and reactivity
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10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological informati	on
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Titanium dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LC50 inhalation rat (mg/l)	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
Crystalline silica (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Specific target organ toxicity – repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Crystalline silica (14808-60-7)	
Specific target organ toxicity – repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard Viscosity, kinematic	: Not classified : No data available

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Titanium dioxide (13463-67-7)	
LC50 fish 1	> 100 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
ErC50 (algae)	61 mg/I (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

12.2. Persistence and degradability

Crystalline silica (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Titanium dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Not bioaccumulative.			
12.4. Mobility in soil			
Low potential for mobility in soil.			

No additional information available

SECTION 13: Disposal consideration	S
13.1. Disposal methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport information	

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Crystalline silica (14808-60-7)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Titanium dioxide (13463-67-7)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		

15.2. International regulations

CANADA

Cry	ystalline silica (14808-60-7)		
Listed on the Canadian DSL (Domestic Substances List)			
Titanium dioxide (13463-67-7)			
Listed on the Canadian DSL (Domestic Substances List)			

EU-Regulations

No additional information available

National regulations

ystalline silica (14808-60-7)		
Listed on IARC (International Agency for Research on Cancer)		
tanium dioxide (13463-67-7)		
Listed on IARC (International Agency for Research on Cancer)		

15.3. US State regulations

Component	State or local regulations
Crystalline silica(14808-60-7)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
Titanium dioxide(13463-67-7)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date

: 05/13/2019

Full text of H-phrases:

H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SDS US (GHS HazCom 2012)

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