

Other Information

No information available

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Titanium dioxide	13463-67-7	97.5-99.0
Triethoxycaprylylsilane	2943-75-1	0.5-2.5

4. First aid measures**First aid measures**

General advice	If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration.
Ingestion	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No known effects under normal use conditions.

Indication of any immediate medical attention and special treatment needed

Note to physicians Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

5. Fire-fighting measures**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Protective equipment and precautions for firefighters

Use personal protective equipment as required.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- Personal precautions** Use personal protective equipment as required. Wash thoroughly after handling. Avoid contact with eyes.
- For emergency responders** Use personal protective equipment as required.
- Environmental precautions** Collect spillage. Do not allow into any sewer, on the ground or into any body of water.

Methods and material for containment and cleaning up

- Methods for containment** Prevent further leakage or spillage if safe to do so.
- Methods for cleaning up** Avoid creating dust. Sweep up and shovel into suitable containers for disposal.
- Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and Storage

Precautions for safe handling

- Advice on safe handling** Use only in well-ventilated areas. Avoid contact with skin and eyes. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

- Storage conditions** Keep container tightly closed in a dry and well-ventilated place. Store at ambient conditions.
- Incompatible materials** Incompatible with strong acids and bases.

8. Exposure Controls/Personal Protection

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³

Appropriate engineering controls

- Engineering controls** Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Wear safety glasses with side shields (or goggles).
- Skin and body protection** Wear protective gloves and protective clothing.
- Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.
- General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state Appearance Color	Solid Powder White	Odor Odor threshold	Characteristic No information available
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<u>Property</u>	<u>Values</u>	<u>Remarks</u> •
pH		No information available
Melting point/freezing point		No information available
Boiling point / boiling range		No information available
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability limit in air		
Upper flammability limit		No information available
Lower flammability limit		No information available
Vapor pressure		No information available
Vapor density		No information available
Specific gravity		No information available
Water solubility	Insoluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Explosive properties		No information available
Oxidizing properties		No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk density	No information available

10. Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known.

Incompatible materials

Strong oxidizing agents. Strong acids.

Hazardous decomposition products

None under normal use conditions.

11. Toxicological Information

Information on likely routes of exposure

Product information

Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.

Component information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Triethoxycaprylylsilane 2943-75-1	= 10060 µL/kg (Rat)	= 5910 µL/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Irritation	No information available.
Corrosivity	No information available.
Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7		Group 2B		X

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity	No information available.
Developmental toxicity	No information available.
Teratogenicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. Ecological Information

Ecotoxicity

None known

Persistence and degradability

Not readily biodegradable.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. Disposal Considerations

Waste treatment methods**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport Information

DOT

Not regulated

ICAO (air)

Not regulated

IATA

Not regulated

IMDG

Not regulated

RID

Not regulated

ADR

Not regulated

15. Regulatory information

International inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains chemicals known to the state of California to cause birth defects or other reproductive harm

Chemical name	California Proposition 65
Titanium dioxide - 13463-67-7	Carcinogen

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Titanium dioxide 13463-67-7	X	X	X

16. Other information

<u>NFPA</u>	Health Hazards 1	flammability 0	Instability 0	Physical and chemical properties - PERSONAL PROTECTION E
<u>HMIS</u>	Health Hazards 1	flammability 0	Physical Hazards 0	

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Disclaimer

The information provided in this Material 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.

End of Safety Data Sheet