

**GELEST TITANIUM DIOXIDE SR**

Safety Data Sheet WIA-SRA

Issue date: 11/14/2014

Revision date: 10/20/2023

Version: 2.2

SECTION 1: Identification**1.1. Identification**

Product name	: GELEST TITANIUM DIOXIDE SR
Product code	: WIA-SRA
Product form	: Substance
Physical state	: Solid
Formula	: O ₂ Ti
Synonyms	: C.I. PIGMENT WHITE 6, MQ RESIN
Chemical name	: Titanium dioxide
Other means of identification	: INCI NAME: TITANIUM DIOXIDE,TRIMETHYLSILOXYSILICATE

1.2. Recommended use and restrictions on use

Recommended use	: Pigment Cosmetics, personal care products
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1.3. Supplier**GELEST, INC.**

11 East Steel Road
Morrisville, PA 19067

USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com**1.4. Emergency telephone number**

Emergency number	: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)
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SECTION 2: Hazard(s) identification**2.1. Classification of the substance or mixture****GHS US classification**

Carcinogenicity Category 2	H351	Suspected of causing cancer
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements**GHS US labeling**

Hazard pictograms (GHS US)



Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: H351 - Suspected of causing cancer
Precautionary statements (GHS US)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P308+P313 - If exposed or concerned: Get medical advice/attention. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

2.3. Hazards not otherwise classified (HNOC)

Other hazards which do not result in classification : The titanium dioxide, used in Gelest surface-treated titanium dioxide products has been tested using standard EU dust test methods (EN 15051-2 and EN 15051-3); results received from our raw material supplier confirm that it does not contain 1% or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$, and therefore, will not be classified as a CMR substance per Commission Delegated Regulation (EU) 2020/217.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Multi-constituent
Name : GELEST TITANIUM DIOXIDE SR
CAS-No. : 13463-67-7

Name	Product identifier	%	GHS US classification
Titanium Dioxide	CAS-No.: 13463-67-7	96 – 99	Not classified
Trimethylsiloxysilicate	CAS-No.: 56275-01-5	1 – 4	Not classified

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

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of soap and water. Get medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : Direct contact with eyes is likely to be irritating.

Symptoms/effects after ingestion : May cause gastrointestinal irritation.

Chronic symptoms : Possible respiratory damage following repeated or prolonged inhalation.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Non-combustible. Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : Do not use a heavy water stream.

GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Minimize generation of dust. Use any suitable mechanical means (vacuum, sweeping etc.). Provide ventilation system and use necessary personal protective equipment as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION". Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide local exhaust or general room ventilation to minimize exposure to dust. Avoid contact with skin and eyes. Do not breathe dust.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep in a clean and dry area in original unopened containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

GELEST TITANIUM DIOXIDE SR (13463-67-7)

USA - ACGIH - Occupational Exposure Limits

Local name	Titanium dioxide
ACGIH OEL TWA	0.2 mg/m ³ (Nanoscale particles. R - Respirable particulate matter) 2.5 mg/m ³ (Finescale particles. R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2023

GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

GELEST TITANIUM DIOXIDE SR (13463-67-7)

USA - OSHA - Occupational Exposure Limits

Local name	Titanium dioxide (Total dust)
OSHA PEL (TWA) [1]	15 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Titanium Dioxide (13463-67-7)

USA - ACGIH - Occupational Exposure Limits

Local name	Titanium dioxide
ACGIH OEL TWA	10 mg/m ³
Remark (ACGIH)	TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2023

USA - OSHA - Occupational Exposure Limits

Local name	Titanium dioxide (Total dust)
OSHA PEL (TWA) [1]	15 mg/m ³ (total dust)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

USA - IDLH - Occupational Exposure Limits

IDLH	5000 mg/m ³
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Trimethylsiloxysilicate (56275-01-5)

USA - OSHA - Occupational Exposure Limits

OSHA PEL (TWA) [1]	15 mg/m ³ (nuisance dust)
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8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Powder.

GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

Molecular mass	: 79.865 g/mol Source: ChemIDPlus
Color	: White.
Odor	: Slight. Characteristic.
Odor threshold	: No data available
pH	: 7 Source: ECHA
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: > 1800 °C
Freezing point	: No data available
Boiling point	: 3000 °C Source: ECHA
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 3.9
Solubility	: Insoluble in water. Water: 500.6 mg/l
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Avoid dust formation.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

GELEST TITANIUM DIOXIDE SR (13463-67-7)

LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
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Titanium Dioxide (13463-67-7)

LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
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Trimethylsiloxysilicate (56275-01-5)

LD50 oral rat	> 5000 mg/kg
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Skin corrosion/irritation	: Not classified pH: 7 Source: ECHA
Serious eye damage/irritation	: Not classified pH: 7 Source: ECHA
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer. In 2006, the International Agency for Research of Cancer (IARC) classified titanium dioxide as "possibly carcinogenic" to humans (Group 2B). The IARC Working Group concluded there was sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide, however, IARC found little evidence of an increased risk for cancer among humans based on epidemiological study data.

GELEST TITANIUM DIOXIDE SR (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
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Titanium Dioxide (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
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In OSHA Hazard Communication Carcinogen list	Yes
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Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Direct contact with eyes is likely to be irritating.
Symptoms/effects after ingestion	: May cause gastrointestinal irritation.
Chronic symptoms	: Possible respiratory damage following repeated or prolonged inhalation.

SECTION 12: Ecological information

12.1. Toxicity

GELEST TITANIUM DIOXIDE SR (13463-67-7)

LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l Test organisms (species):
LOEC (chronic)	5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Titanium Dioxide (13463-67-7)

LC50 - Fish [1]	> 100 mg/l
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GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

Titanium Dioxide (13463-67-7)

EC50 - Other aquatic organisms [1]	> 100 mg/l Test organisms (species):
EC50 72h - Algae [1]	> 50 mg/l Source: ECHA
LOEC (chronic)	5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Trimethylsiloxysilicate (56275-01-5)

LC50 - Fish [1]	30780.012 mg/l Source: EPI SUITE
EC50 96h - Algae [1]	1711.73 mg/l Source: EPI SUITE

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Trimethylsiloxysilicate (56275-01-5)

Mobility in soil	0.2466 Source: EPI SUITE
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12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.
Product/Packaging disposal recommendations : Dry material can be landfilled. Dispose of contents/container to licensed waste disposal facility..
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
Transport document description			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable

GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

DOT	TDG	IMDG	IATA
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

DOT
No data available

TDG
No data available

IMDG
No data available

IATA
No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Titanium Dioxide	13463-67-7	Present	Active	
Trimethylsiloxysilicate	56275-01-5	Present	Active	

15.2. International regulations

CANADA

GELEST TITANIUM DIOXIDE SR (13463-67-7)
Listed on the Canadian DSL (Domestic Substances List)

Titanium Dioxide (13463-67-7)
Listed on the Canadian DSL (Domestic Substances List)

Trimethylsiloxysilicate (56275-01-5)
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

Titanium Dioxide (13463-67-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

National regulations

GELEST TITANIUM DIOXIDE SR (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Titanium Dioxide (13463-67-7)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

Trimethylsiloxysilicate (56275-01-5)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

15.3. US State regulations

GELEST TITANIUM DIOXIDE SR (13463-67-7)

State or local regulations	
	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



WARNING:

This product can expose you to Titanium Dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Titanium Dioxide (13463-67-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		

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

Full text of H-phrases::

H351	Suspected of causing cancer
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GELEST TITANIUM DIOXIDE SR

Safety Data Sheet

Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 0 Minimal Hazard - Materials that will not burn

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.

Issue date: 11/14/2014

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SDS US (GHS HazCom 2012) - Custom

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



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