

**GELEST TITANIUM DIOXIDE SF**

Safety Data Sheet WIA-SFA

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Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form	: Substance
Physical state	: Solid
Substance name	: GELEST TITANIUM DIOXIDE SF
Product code	: WIA-SFA
Synonyms	: TITANIUM DIOXIDE, PIGMENT WHITE 6, C.I. 77891 TITANIUM DIOXIDE, [3-(N-ACETHYLHYDROXYPROLYL)PROPYL]TRIETHOXSILANE
Other means of identification	: INCI NAME: TITANIUM DIOXIDE, ACETYL HYDROXYPROLYLPROPYLTRIETHOXSILANE

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture	: Pigment Cosmetics, personal care products
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**GELEST, INC.**11 East Steel Road
Morrisville, PA 19067**USA**

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info@gelest.com - www.gelest.com**GELEST INC.**Fritz-Klatte-Strasse 8
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T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM

info@gelestde.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: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

EUH-statements	: EUH210 - Safety data sheet available on request. EUH212 - Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
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2.3. Other hazards

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
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Delegated Regulation (EU) 2020/217.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Multi-constituent
Name : GELEST TITANIUM DIOXIDE SF
CAS-No. : 13463-67-7 (&) N/A
EC-No. : 236-675-5 (&) N/A

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Titanium Dioxide	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5	98 – 99	Not classified
[3-(N-acetylhydroxypropyl)propyl]triethoxysilane	(CAS-No.) not found (EC-No.) not found	1 – 2	Eye Irrit. 2, H319

Full text of 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 person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of 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, both acute and delayed

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

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

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

Symptoms/effects after ingestion : May cause gastrointestinal irritation.

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

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. 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.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

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6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Avoid dust formation. Sweep or shovel spills into appropriate container for disposal. Provide ventilation system and use necessary personal protective equipment as described in "8. EXPOSURE CONTROLS AND PERSONAL PROTECTION".

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 : Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust. In case of insufficient ventilation, wear suitable respiratory protection.

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

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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

GELEST TITANIUM DIOXIDE SF (13463-67-7 (&) N/A)		
Ireland	OEL STEL	30 mg/m ³ (calculated-total inhalable dust) 12 mg/m ³ (calculated-respirable dust)
Titanium Dioxide (13463-67-7)		
Austria	MAK (OEL TWA)	5 mg/m ³ (alveolar dust, respirable fraction)
Austria	MAK (OEL STEL)	10 mg/m ³ (alveolar dust, respirable fraction)
Belgium	OEL TWA	10 mg/m ³
Bulgaria	OEL TWA	10 mg/m ³ (respirable dust)
France	VME (OEL TWA)	10 mg/m ³
Greece	OEL TWA	10 mg/m ³ (inhalable fraction) 5 mg/m ³ (respirable fraction)
Italy - Portugal - USA ACGIH	ACGIH OEL TWA	10 mg/m ³
Latvia	OEL TWA	10 mg/m ³
USA IDLH	IDLH	5000 mg/m ³
USA OSHA	OSHA PEL TWA [1]	15 mg/m ³ (total dust)
Spain	VLA-ED (OEL TWA) [1]	10 mg/m ³
Switzerland	MAK (OEL TWA) [1]	3 mg/m ³ (respirable dust)
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ (total inhalable) 4 mg/m ³ (respirable)
United Kingdom	WEL STEL (OEL STEL)	30 mg/m ³ (calculated-total inhalable) 12 mg/m ³ (calculated-respirable)
Denmark	OEL TWA [1]	6 mg/m ³
Ireland	OEL TWA [1]	10 mg/m ³ (total inhalable dust) 4 mg/m ³ (respirable dust)
Ireland	OEL STEL	30 mg/m ³ (calculated-total inhalable dust) 12 mg/m ³ (calculated-respirable dust)
Lithuania	IPRV (OEL TWA)	5 mg/m ³
Norway	Grenseverdi (OEL TWA) [1]	5 mg/m ³
Norway	Korttidsverdi (OEL STEL)	5 mg/m ³
Poland	NDS (OEL TWA)	10 mg/m ³ (<2% free crystalline silica and containing no asbestos-inhalable fraction)
Romania	OEL TWA	10 mg/m ³
Romania	OEL STEL	15 mg/m ³
Sweden	NGV (OEL TWA)	5 mg/m ³ (total dust)

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Titanium Dioxide (13463-67-7)		
Canada (Quebec)	VEMP (OEL TWA)	10 mg/m ³ (containing no Asbestos and <1% Crystalline silica-total dust)
Australia	OES TWA [1]	10 mg/m ³ (containing no asbestos and <1% crystalline silica-inhalable dust)
Portugal	OEL TWA	10 mg/m ³
Portugal	OEL chemical category	A4 - Not Classifiable as a Human Carcinogen

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

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:

Safety glasses. Contact lenses should not be worn

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.
Colour	: White.
Odour	: Slight. characteristic.
Odour threshold	: No data available
Refractive index	: No additional information available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 1800 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 3.9
Solubility	: Insoluble in water.
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
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

This product is stable under the normal storage and handling 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 : Not classified

Titanium Dioxide (13463-67-7)

LD50 oral rat	> 10000 mg/kg
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Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified.

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.

Titanium Dioxide (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
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Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified.

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Health injuries are not known or expected under normal use.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

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

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

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

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.
Product/Packaging disposal recommendations : Dry material can be landfilled. Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable
UN-No. (ADN) : Not applicable
UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

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14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

GELEST TITANIUM DIOXIDE SF is not on the REACH Candidate List

GELEST TITANIUM DIOXIDE SF is not on the REACH Annex XIV List

GELEST TITANIUM DIOXIDE SF is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

GELEST TITANIUM DIOXIDE SF is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Regulatory reference : Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

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	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
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Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

EUH210	Safety data sheet available on request.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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