

Titanium Dioxide

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 /
March 26, 2012 / Rules and Regulation

Revision Date: 22-Apr-2026
Supersedes: 03-Jun-2024

1 PRODUCT & COMPANY IDENTIFICATION

| | | | |
|----------------------|-----------------------------|------------------------------------|--|
| Product Name: | Titanium Dioxide | Distributor: | MakingCosmetics Inc. |
| Synonyms: | Titanic anhydride, anatase | Address: | 10800 231 st Way NE Redmond, WA 98053 (USA) |
| INCI Name: | Titanium dioxide (CI 77891) | Phone / Fax: | 425-292-9502 / 425-292-9601 |
| CAS Number: | 13463-67-7 | Web: | www.makingcosmetics.com |
| Formula: | No data available | | |
| Product Form: | Solid | | |
| Product Use: | Cosmetic use | Emergency Telephone Number: | 1-800-424-9300 (Chemtrec) |

2 HAZARDS IDENTIFICATION

GHS Classification: Not classified.
GHS Labeling: Warning
GHS Hazard Pictograms:



GHS Hazard Statements: Health Hazards: Carcinogenicity (category 2): Suspected of causing cancer.
GHS Precautionary Statements: P201: Prevention: 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+311: Response: If exposed or concerned, get medical attention.
P405: Storage: Store locked up.
P501: Disposal: Dispose of contents/container in accordance with local/ regional/ national/ international regulations.

Potential Health Hazards: Eyes: May cause temporary eye irritation
Inhalation: No adverse effects due to inhalation are expected.
Skin: No adverse effects due to skin contact are expected.
Ingestion: Expected to be a low ingestion hazard.
Other: Suspected of causing cancer.

NFPA Ratings (704):

| | | |
|-----------------|-----|---------|
| Health | 1 | Slight |
| Flammability | 0 | Minimal |
| Reactivity | 0 | Minimal |
| Specific Hazard | N/A | |

3 COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Component</u> | <u>CAS No.</u> | <u>Weight %</u> | <u>Molecular Weight</u> |
|-----------------------------|----------------|-----------------|-------------------------|
| Titanium dioxide (CI 77891) | 13463-67-7 | 100% | Not Available |

4 FIRST AID MEASURES

Eyes: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Inhalation: Supply to fresh air; consult doctor in case of complaints.
Skin: Wash with water and soap and rinse thoroughly.
Ingestion: Rinse mouth. Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. No special measures are required.

5 FIRE-FIGHTING MEASURES

| | |
|---|--|
| Suitable (and unsuitable) extinguishing media: | This product is not flammable. Use appropriate media (water fog, foam, dry chemical powder. Carbon dioxide (CO ₂)) for adjacent fire. Do not use water jet as an extinguisher, as this will spread the fire. |
| Special protective equipment & precautions for firefighters: | Use standard firefighting procedures and consider the hazards of other involved materials. Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Move containers from fire area if you can do so without risk. |
| Specific hazards arising from the chemical: | During fire, gases hazardous to health may be formed. No unusual fire or explosion hazards noted. See also Stability and Reactivity section. |

6 ACCIDENTAL RELEASE MEASURES

| | |
|---|--|
| Personal precautions, protective equipment & emergency procedures: | Avoid formation of dust. Ensure adequate ventilation. See section 8 for recommendations on the use of personal protective equipment. |
| Environmental precautions: | Avoid liquid release into sewers/public water/environment. Notify environmental authorities in case of leak. |
| Methods and material for containment and cleaning up: | Collect mechanically. Avoid dust formation. Dispose of all waste and cleanup materials in accordance with regulations. |

7 HANDLING & STORAGE

| | |
|--|--|
| Precautions for safe handling: | Provide vacuum dust collection if dust is formed. The product is not flammable. Product may be packaged at temperatures of 212 - 248°F and stay hot for a long time depending on ambient temperatures and inventory storage practices. Due to potential of elevated pigment temperature, caution should be used while handling pigment and when used in or near volatile solvent applications. Observe good industrial hygiene practices. See section 8 for recommendations on the use of personal protective equipment. |
| Conditions for safe storage, incl. any incompatibilities: | Store locked up. Store in tightly closed container, in dry conditions. Store away from incompatible materials (see section 10 for incompatibilities). |

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

| <u>Component</u> | <u>Exposure Limits</u> | <u>Basis</u> | <u>Entity</u> |
|-----------------------------|--|--------------|------------------------|
| Titanium dioxide (CI 77891) | 10 mg/m ³ (Respirable fraction) 15mg/m ³ (Total Dust) | TWA TWA | ACGIH-TLV ACGIH-PEL |

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection:

| | |
|--------------------|--|
| Eyes: | Safety glasses with side shields should be worn. |
| Inhalation: | Use local exhaust ventilation if airborne concentrations would otherwise exceed applicable exposure limits. If workplace exposure limits are exceeded, use respiratory protection according to national regulations. |
| Body: | Not expected to be an irritant, however prolonged exposure should be avoided by wearing suitable protective gloves and clothing. |
| Other: | Always observe good personal hygiene measures, wash hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

9 PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-----------------------------|-------------------|-------------------------------------|--------------------------|
| Appearance: | Powder | Vapor Pressure: | No data available |
| Odor: | Odorless | Vapor Density: | No data available |
| Odor Threshold: | Not relevant | Evaporation Rate: | No data available |
| Color: | White | Flammability: | Product is not flammable |
| Molecular Weight: | No data available | Upper/lower Explosive Limit: | No data available |
| pH: | 7 - 8.5 | Flash Point: | Not applicable |
| Boiling Point/Range: | No pertinence | Specific Gravity: | No data available |

| | | | |
|--|---|-------------------------------------|---------------------------|
| Melting Point/Range: | >3272°F (>1800°C) | Water Solubility: | Insoluble |
| Density at 20°C: | Anatase 3.9 g/cm ³ Rutile 4.2 g/cm ³ | Auto-Ignition Temperature: | Not applicable |
| Partition Coefficient: n-octanol/water: | Not applicable | Decomposition Temperature: | No data available |
| Viscosity: | No data available | Explosive Limits/Properties: | Not explosive |
| Oxidizing Properties: | Not oxidizing | Bulk Density: | 500-800 kg/m ³ |

10 STABILITY AND REACTIVITY

| | |
|--|--|
| Reactivity: | The substance is stable under normal use conditions. |
| Chemical Stability: | Stable under normal conditions. |
| Hazardous Polymerization: | No data available. |
| Conditions to Avoid: | No data available. |
| Incompatible Materials: | Strong oxidizing agents. |
| Hazardous Decomposition Products: | No hazardous decomposition products are known. |
| Possible Hazardous Reactions: | No dangerous reaction known. |

11 TOXICOLOGICAL INFORMATION

| | |
|--|---|
| Acute Toxicity: | Dermal LD50 (Rabbit): > 5000 mg/kg Oral LD50 (rat): >5000 mg/kg (OECD 425) Inhalation LC50 (rat); 4 hours >6.8 mg/l |
| Skin: | No adverse effects due to skin contact are expected. |
| Eyes: | No adverse effects due to eye contact are expected, but like any foreign body, particles (dust) can cause mechanical irritation. |
| Respiratory: | Dust may be an irritant. |
| Ingestion: | No data available. |
| Carcinogenicity: | Suspected of causing cancer. |
| IARC: | 2B Possibly carcinogenic to humans. |
| OSHA: | Not listed. |
| NTP: | Not listed. |
| Teratogenicity: | No data available. |
| Germ Cell Mutagenicity: | No data available. |
| Embryotoxicity: | No data available. |
| Specific Target Organ Toxicity: | No data available. |
| Reproductive Toxicity: | No data available. |
| Sensitization: | No sensitizing effects. |
| Sub-Chronic Toxicity: | Oral (Rat) NOAEL: 3,500 mg/kg/d (90 days). |
| Additional Toxicological Information: | On Feb 18, 2020 the European Union (EU) published the delegated regulation classifying certain powder titanium dioxide (TiO ₂) as a suspected carcinogen (Category 2) via inhalation under EU Regulation No 1272/2008 on classification, labelling, and packing (CLP) of substances and mixtures. Classification requirements came into force on October 1, 2021, mandating hazard labels be placed on certain TiO ₂ sold into the EU market. This classification of TiO ₂ is not based on new science, but instead on older scientifically questioned animal test data. Other studies and extensive data, including separate epidemiologic studies of TiO ₂ workers have shown no TiO ₂ -specific links to cancer. |

12 ECOLOGICAL INFORMATION

| | |
|------------------------------|---|
| Ecotoxicity: | Not an environmentally hazardous substance. |
| Aquatic Vertebrate: | LC50 (Sheepshead Minnow): >10,000 mg/l, (semi-static, acute toxicity for fish) OECD 203. LC50 (Pimephales promelas): >1,000 mg/l (static, acute toxicity for freshwater fish). |
| Aquatic Invertebrate: | LC50 (Acartia tonsa) >10,000 mg/l (Acartia tonsa). LC50 (Daphnia Magna): >1,000 mg/l. |
| Aquatic Plants: | EC50 (Pseudokirchneriella Subcapitata) > 100 mg/l (static freshwater alga and cyanobacteria, growth inhibition test) OECD 201. EC50 (Skeletonema Costatum) >10,000 mg/l. |
| Sediment Organisms: | NOEC (Hyalella Azteca) ≥ 100,000 mg/kg dw (semi-static, ASTM 1706). |

| | |
|---------------------------------------|--|
| Persistence and Degradability: | Not relevant for inorganic substances. |
| Bioaccumulative Potential: | Does not accumulate in organisms. |
| Mobility in Soil: | The substance is immobile in soil. |
| PBT and vPvB Assessment: | No data available. |
| Other Adverse Effects: | No further relevant information available. |

13 DISPOSAL CONSIDERATIONS

| | |
|----------------------------|--|
| Waste Residues: | Material is not hazardous waste. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with all applicable local regulations. |
| Product Containers: | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. Follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of contents/container in accordance with all applicable local regulations. |

The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods

14 TRANSPORT INFORMATION

| | |
|--|-----------------------------------|
| DOT (Dept. of Transportation, USA): | Not regulated as dangerous goods. |
| TDG (Transportation of Dangerous Goods, Canada): | Not data available. |
| IMDG (International Maritime Dangerous Goods): | Not regulated as dangerous goods. |
| IATA (International Air Transport Association): | Not regulated as dangerous goods. |
| ICAO (International Civil Aviation Organization): | No data available. |

15 REGULATORY INFORMATION

| | |
|----------------------------------|--|
| TSCA Inventory Status: | Active. |
| SARA 355: | Not listed as an extremely hazardous substance |
| SARA 313: | Not listed as a specific toxic chemical listing. |
| SARA 311: | Not listed as a tier 1 notification. |
| Canada (DSL): | Active. |
| Hazardous Air Pollutants: | Substance is not listed. |
| NJ Right to Know: | Substance is listed. |
| PA Right to Know: | Substance is listed. |
| Korea ECL: | Listed. |
| New Zealand: | Listed. |
| California Prop. 65: | WARNING: This product can expose you to chemicals including Titanium dioxide, which is known to the State of California to cause cancer or reproductive toxicity. For more information, go to www.P65Warnings.ca.gov |

16 OTHER INFORMATION

| | |
|-----------------------|--|
| Revision Date: | 22-Apr-2026 |
| Compliance: | This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 |
| Disclaimer: | This 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 other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use. |