Version: 12.2022
Rev.0

Material safety data sheet SDS

According to EU Regulation EC No. 453/2010 in the current version

TITANIUM DIOXIDE

1. Identification of the substance/mixture and company

Product name:	Titanium dioxide
INCI	Titanium dioxide
EC number :	236-675-5
Registration number	01-2119489379-17-XXXX
Uses:	Raw material for cosmetics
Supplier company identification:	Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania Tel/Fax: +40259-436.755, www.ellemental.com
Emergency:	RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București. International emergency number: +49 180 2273-112

2. Hazards Identification

2.1. Classification of the substance or mixture
This product is not considered hazardous according to EC Regulation 1272/2008 (CLP).
Physico-chemical effects harmful to human health and the environment: No
other risk
2.2. Label elements
This product is not considered hazardous according to EC Regulation 1272/2008 (CLP).
Special provisions:
EUH212 Warning! Hazardous respirable powder may form during use. Do not inhale powder. EUH210
Safety data sheet available on request
Special provisions according to Annex XVII (REACH) as amended:
None
2.3. Other hazards
This substance does not contain PBT, vPvB and
has no endocrine disrupting properties
Other risks: No other risks
Dust may be irritating to skin, Dust may be irritating to eyes, Dust may be irritating to lungs and cause sneezing, Dust may be irritating to respiratory track, Skin contact may cause irritation due to mechanical action on sensitive skin, Eye contact may cause irritation due to mechanical action and secretion of tears. Inhalation may cause coughing, sneezing and respiratory problems, Ingestion may cause stomach ache, vomiting and diarrhea. May form combustible dust concentrations in the air.

3. Declaration of ingredients

3.1 Substances
Identification of substances: Titanium Dioxide
CAS No: 13463-67-7

Material safety data sheet SDS
According to EU Regulation EC No. 453/2010 in the current version
TITANIUM DIOXIDE

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3.2 Mixtures
Not applicable

Full text of R-, H- and EUH-phrases: see section 16

4. First aid measures

4.1. Description of first aid measures
First-aid measures general:
Remove person to uncontaminated area. Avoid all unnecessary exposure.
First-aid measures after inhalation:
Assure fresh air breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
First-aid measures after skin contact:
Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact:
Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion:
Rinse mouth. Drink plenty of water. Call a POISON CENTER/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries:
Under normal conditions of use, no adverse effects to health have been observed.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

5. Fire fighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Not combustible. Use extinguishing media appropriate for surrounding fire. Do not contaminate ground and surface water.
Unsuitable extinguishing media:
Do not use a heavy water stream.
5.2. Special hazards arising from the substance or mixture
Reactivity:
No dangerous reactions known.
5.3. Advice for firefighters

Firefighting instructions:
Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting:
Do not enter fire area without proper protective equipment, including respiratory protection. Use a self-contained breathing apparatus and also a protective suit.
Other information:
No hazardous decomposition products known.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Protective equipment:
Wear suitable protective clothing and eye or face protection. Minimize generation of dust. Wear suitable respiratory equipment.
Emergency procedures:
Evacuate unnecessary personnel.
6.1.2. For emergency responders
Protective equipment:
Equip cleanup crew with proper protection.
Emergency procedures:
Ventilate area.
6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. Prevent soil and water pollution.
6.3. Methods and material for containment and cleaning up
Methods for cleaning up:
Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Keep in suitable, closed containers for disposal.
6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection

7. Handling and storage

7.1. Precautions for safe handling
Additional hazards when processed:
Does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice and that precautions are taken to avoid the inhalation of dust.
Precautions for safe handling:

Material safety data sheet SDS
According to EU Regulation EC No. 453/2010 in the current version
TITANIUM DIOXIDE

Avoid all unnecessary exposure. Wear suitable protective clothing, gloves and eye or face protection. Wear suitable respiratory equipment. Minimize generation of dust.
7.2. Conditions for safe storage, including any incompatibilities
Technical measures:
Refer to all applicable national, international and local regulations or provisions.
Storage conditions:
Store tightly closed in a dry and cool place. Keep in a cool place away from reducing agents/(strong) acids/(strong) bases.
Incompatible products:
Strong bases. strong acids.
Packaging materials:
Keep only in the original container.
7.3. Specific end use(s)
No additional information available

8. Exposure controls / personal protection

8.1 Control parameters
Type OEL country Occupational Exposure Limit
ACGIH Long term 10 mg/m3
A4 - Not Classifiable as a Human Carcinogen;lower respiratory tract irritation;
ACGIH Long term 10 mg/m3
lower respiratory tract irritation;A4 - Not Classifiable as a Human Carcinogen;
ACGIH Long term 10 mg/m3
A4 - Not Classifiable as a Human Carcinogen;lower respiratory tract irritation
ACGIH Long term 10 mg/m3
lower respiratory tract irritation;A4 - Not Classifiable as a Human Carcinogen
EU Long-term 10 mg/m3
MAK Germany Long term 0.3 mg/m3
ACGIH Long term 0.2 mg/m3
A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;lower respiratory tract irritation;pneumoconiosis
ACGIH Long term 2.5 mg/m3
A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;lower respiratory tract irritation;pneumoconiosis
NATIONAL Australia Long term 10 mg/m3
NATION France Long term 10 mg/m3
NATION Spain Long term 10 mg/m3
NATION Germany Long term 1.25 mg/m3
NATION Germany Long term 10 mg/m3
NATION Portugal Long term 10 mg/m3

Material safety data sheet SDS
According to EU Regulation EC No. 453/2010 in the current version
TITANIUM DIOXIDE

NATION Belgium Long term 10 mg/m3
NATION Poland Long term 10 mg/m3; Short term 30 mg/m3 AL
NATION United K Long term 10 mg/m3; Short term 30 mg/m3
NATION United K Long term 10 mg/m3; Short term 12 mg/m3
NATION United K Long term 4 mg/m3; Short term 30 mg/m3
PNEC exposure limit values
Route of exposure: Water; PNEC Limit: 1 mg/l
Route of exposure: N.A.; PNEC Limit: 1000 mg/kg
Route of exposure: Soil (agricultural); PNEC Limit: 0.127mg/l Route of exposure: Water; PNEC Limit: 100 mg/kg
Exposure route: Sediment in salt water; PNEC Limit: 100 mg/kg
Exposure route: Soil; PNEC Limit: 100 mg/kg
Route of exposure: Air; PNEC Limit: 1667 mg/kg
Derived No Effect Level (DNEL)
Route of exposure: Human inhalation; Frequency of exposure: Long-term, local effects Industrial worker: 10 ; Professional worker: 10 mg/m3
Route of exposure: Oral human; Frequency of exposure: Long-term, systemic effects Consumer: 700 mg/m3
8.2. Exposure controls
Eye protection
Skin protection
Hand protection
Glasses with side protection. Chemical protective clothing.
Disposable gloves.
Respiratory protection
White "P" filter mask Hygiene and technical measures
Not determined
Do not eat, drink or smoke during use

9. Physical and chemical properties

Physical Condition:
Solid Smells. Neutral
pH: Not determined
Kinematic viscosity: Not determined
Melting/freezing point: 1560 °C (2840 °F) Notes: 1800 °C
Initial boiling point and boiling range: 3000 °C (5432 °F) Notes: 2500 - 3000 °C Ignition temperature: Not determined
Upper/lower flammability or explosion limit: Not determined Vapour density: 0
Vapour pressure: Not determined
Relative density: 3.90 g/cm3 Solubility in water: Insoluble Solubility in oil: Not

determined
Partition coefficient (n-octanol/water): not determined
Nanoform dispersion stability:
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined
Flammability: Not classified
Volatile Organic Compounds - VOC = N.A.
9.2. Other information
Evaporation rate: Not determined
Mixability: Not determined
Conductivity: Not determined No
other relevant information

10. Stability and reactivity

10.1. Reactivity
Data not available
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
Not established.
10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.
Prevent formation of dust, lack of ventilation.
10.5. Incompatible materials
Not available
10.6. Hazardous decomposition products
Not available

11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Toxicological information on the substance
a) acute toxicity Unclassified
Based on the available data, the classification criteria are not met.
LD50 Oral Rat > 10000 mg/kg
LC50 Inhalation Rat > 6.82 mg/l 4h
LC50 Inhalation Rat = 5.09 mg/l 4h
LD50 Oral Rat > 10000 mg/kg
b) skin corrosion/irritation Unclassified
Based on the available data, the classification criteria are not met.

c) serious injury/irritation of the eyes Unclassified
Based on the available data, the classification criteria are not met.
d) sensitisation of the airways or skin
e) germ cell mutagenicity
Unclassified
Based on the available data, the classification criteria are not met. Unclassified
Based on the available data, the classification criteria are not met.
f) carcinogenicity Unclassified
Based on the available data, the classification criteria are not met.
g) reproductive toxicity Unclassified
Based on the available data, the classification criteria are not met.
h) STOT (specific target organ toxicity) – single exposure
i) STOT (specific target organ toxicity) – repeated exposure
Unclassified
Based on the available data, the classification criteria are not met.
Unclassified
Based on the available data, the classification criteria are not met.
j) aspiration hazard Unclassified
Based on the available data, the classification criteria are not met.
11.2. Information on other hazards
Endocrine disrupting properties:
This substance has no endocrine disrupting properties.

12. Ecological information

12.1. Toxicity
Adopt good manufacturing practices so that the product is not released into the environment:
List of eco-toxicological properties of the product
Component Ecotox
Information
Titanium Dioxide a) Acute aquatic toxicity : LC50 Fish Oncorhynchus mykiss > 100 mg/L 96h OECD 203
(a) Acute aquatic toxicity : LC50 Fish Cyprinodon variegatus >
12.2. Persistence and degradability
N.A.
12.3. Bioaccumulation potential
N.A.
12.4. Mobility in soil
N.A.
12.5. PBT and vPvB assessment results

This substance has no PBT or vPvB properties
12.6. Endocrine disrupting properties
This substance has no endocrine disrupting properties
12.7. Other adverse effects
N.A

13. Disposal considerations

13.1. Waste treatment methods
Regional legislation (waste): Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods: This material and its container must be disposed of as hazardous waste. This material and its container must be disposed of in a safe way.
Waste disposal recommendations: Empty the packaging completely prior to disposal.
Ecology - waste materials: Avoid release to the environment.

14. Transport information

4.1. UN number or identification number
N/A
14.2. UN proper shipping name
ADR-boarding transport name: N/A
IATA-boarding transport name: N/A
IMDG-boarding transport name: N/A
14.3. Transport hazard class(es)
ADR-class: N/A
IATA-Class: N/A
IMDG-Class: N/A
14.4. Packaging group
ADR-Group Packing: N/A
IATA-Group Packing: N/A
IMDG-Group Packing: N/A
14.5. Environmental hazards
Amounts of toxic ingredients: 0.00 Amounts of very toxic ingredients: 0.00 Marine pollutant: No
Environmental pollutant: No IMDG-EMS: N/A
14.6. Special precautions for users
Roads and Railways (ADR-RID):
ADR-Label: N/A

ADR - Hazard Identification Number: N/A ADR-
Special Provisions: N/A
ADR-Tunnel restriction code: N/A
Air (IATA):
Sea (IMDG):
IATA-Passenger aircraft: N/A
IATA-Freight Aircraft: N/A IATA-
Label: N/A
IATA-Secondary track:
N/A IATA-Erg: N/A
IATA-Special Provisions: N/A
IMDG-Storage duration code: N/A
IMDG-Storage duration note: N/A
IMDG-Secondary track: N/A
IMDG-Special Provisions: N/A
14.7. Bulk shipping in accordance with IMO instruments
N.A.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific to the substance or mixture in question
Directive 98/24/EC (Risks related to chemical agents at work) Directive
2000/39/EC (Occupational exposure limit values)
Regulation (EC) No 1907/2006 (REACH) Regulation
(EC) No 1272/2008 (CLP)
Regulation (EC) No 790/2009 (ATP 1 CLP) and (EU) No 758/2013
Regulation (EU) No 286/2011 (ATP 2 CLP)
Regulation (EU) No 618/2012 (ATP 3 CLP) Regulation
(EU) No 487/2013 (ATP 4 CLP) Regulation (EU) No
944/2013 (ATP 5 CLP) Regulation (EU) No 605/2014
(ATP 6 CLP) Regulation (EU) No 2016/918 (ATP 8 CLP)
Regulation (EU) No .... 2016/1179 (ATP 9 CLP)
Regulation (EU) No 2017/776 (ATP 10 CLP) Regulation
(EU) No 2018/669 (ATP 11 CLP) Regulation (EU) No
2019/521 (ATP 12 CLP) Regulation (EU) No
2018/1480 (ATP 13 CLP) Regulation (EU) No
2020/217 (ATP 14 CLP) Regulation (EU) No 2020/878
Restrictions on products or substances contained therein according to Annex XVII Regulation (EC) 1907/2006 (REACH) as amended:
Product restrictions: None Restrictions on
substances contained: 75

Material safety data sheet SDS
According to EU Regulation EC No. 453/2010 in the current version
TITANIUM DIOXIDE

Provisions in relation to EU Directive 2012/18 (Seveso III):
N.A.
Regulation (EU) No 649/2012 (PIC Regulation)
German Water Hazard Class
NWG: Not dangerous to water
German Lagerklasse according to TRGS 510:
LGK 11
SVHC substances:
None > 0.1%
15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the substance

16. Additional information

16.1 Abbreviations
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Test-ing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regula-tion (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergen-cy Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration as-sociated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good La-boratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships car-rying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - Interna-tional Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; INCI: International Nomenclature of Cosmetic Ingredients; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test popula-tion; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - Interna-tional Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Ef-fect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic sub-stance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quanti-tative) Structure Activity Relationship; PNEC: Predicted No Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Re-striction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; STE: Short-term exposure; STEL: Short Term Exposure limit; STOT: Specific Target Organ Toxicity; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances;

Material safety data sheet SDS
According to EU Regulation EC No. 453/2010 in the current version
TITANIUM DIOXIDE

TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

16.2 Full H sentenses text in point 3 :
Code Description
H351 Suspected of causing cancer by inhalation.
Code Hazard class and hazard category Description
3.6/2 Carc. 2 Carcinogenicity, Category 2

Disclaimer:
This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.