



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

**1. Identification of the substance/mixture and company**

Trade name: Titanium dioxide Paste  
Pigment dispersion of titanium dioxide in castor oil  
INCI Ricinus communis seed oil, CI 77891, Polyhydroxystearic acid  
CAS No. : 8001-79-4/ 13463-67-7/ 27924-99-8  
EINESCS/EC No. : 232-293-8/ 236-675-5  
REACH pre-registration No. : -  
Utilization: Raw material for cosmetic or professional use  
Supplier company identification: **Elemental SRL**, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania  
Tel/Fax: +40259-436.755, www.elemental.eu  
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**

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

**Adverse physicochemical, human health and environmental effects:**

No other hazards

**2.2 Label elements**

**Special provisions according to Annex XVII of REACH and subsequent amendments**

None

**2.3 Other hazards**

Other Hazards: No other hazards

**Hazards not otherwise classified identified during the classification process**

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

No PBT Ingredients are present

**3. Declaration of ingredients**

**3.1 Substances**

Not Available

**3.2 Mixtures**

Mixture identification: Ricinus communis seed oil, CI 77891, Polyhydroxystearic acid

**Hazardous components within the meaning of the CLP regulation and related classification:**

Qty	Name	Ident. Numb.	Classification	Registration Number
60-70 %	Titanium dioxide	CAS:13463-67-7 EC:236-675-5	-	01-2119489379-17-XXXX



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

#### 4. First aid measures

##### 4.1 Description of first aid measures

**In case of skin contact:** Wash with plenty of water and disinfectant/non-abrasive soap.

**In case of eye contact:** Wash immediately with water.

**In case of ingestion:** Do not induce vomiting, get medical attention showing the MSDS and label hazardous.

**In case of inhalation:** Remove casualty to fresh air and keep warm and at rest.

##### 4.2 Most important symptoms and effects, both acute and delayed

Not Available

#### 5. Fire fighting measures

##### 5.1 Extinguishing media

Suitable extinguishing media: Water, CO<sub>2</sub>, foam, chemical powders, according to the materials involved in the fire. In case of fire, use foam, dry chemical, CO<sub>2</sub>.

Unsuitable extinguishing media: None in particular.

##### 5.2 Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

##### 5.3 Advice for fire-fighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

#### 6. Accidental release measures

##### 6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

##### 6.2 Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose of it following local legislation.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities if required.

Suitable material for taking up: dry and inert absorbing material (e.g. vermiculite, sand, earth).

##### 6.3 Methods and material for containment and cleaning up



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

---

Suitable material for taking up: dry and inert absorbing material (e.g. vermiculite, sand, earth).

Wash with plenty of water.

**6.4 Reference to other sections**

See also section 8 and 13.

---

**7. Handling and storage**

**7.1 Precautions for safe handling:**

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in a tightly closed container in a cool, dry, well-ventilated area.

Incompatible materials: None in particular.

Instructions as regards storage premises: Adequately ventilated premises.

**7.3 Specific end use(s)**

Recommendation(s)

Storage temperature < 25°C

Industrial sector specific solutions: None in particular.



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

**8. Exposure controls / personal protection**

**8.1 Control parameters**

**Community Occupational Exposure Limits (OEL)**

Component	OEL Type	Country	Long Term mg/m <sup>3</sup>	Long Term ppm	Short Term mg/m <sup>3</sup>	Short Term ppm	Behaviour
Titanium dioxide	ACGIH		10				
	NATIONAL	France	10				
	NATIONAL	Spain	10				
	NATIONAL	Portugal	10				
	NATIONAL	Belgium	10				
	NATIONAL	Poland	10.0				
	NATIONAL	Russian Federation	10				
	NATIONAL	United Kingdom	10		30		
	NATIONAL	United Kingdom	10		12		
	NATIONAL	United Kingdom	4		30		
	NATIONAL	Germany	3.000		6.000		
	NATIONAL	Germany	10.000		20.000		
	EU		10.000				
	NATIONAL	Austria	5.000				
	NATIONAL	Austria			10.000		
	NATIONAL	Bulgaria	10.000				
	NATIONAL	Croatia			4.000		
	NATIONAL	Croatia			10.000		
	NATIONAL	Denmark	6.000				
	NATIONAL	Estonia	5.000				
	NATIONAL	Finland	10.000				
	NATIONAL	Greece	10.000				
	NATIONAL	Greece	5.000				
	NATIONAL	Hungary	10.000				
	NATIONAL	Hungary	6.000				
	NATIONAL	Ireland	10.000				
	NATIONAL	Ireland	4.000				
	NATIONAL	Italy	10.000				
	NATIONAL	Latvia	10.000				
	NATIONAL	Lithuania	5.000				
	NATIONAL	Netherlands	10.000				
	NATIONAL	Netherlands	5.000				
	NATIONAL	Norway	5.000				
NATIONAL	Romania	10.000		15.000			
NATIONAL	Slovakia (Slovak Republic)	1.500					
NATIONAL	Sweden	5.000					
NATIONAL	Switzerland	3.000					
NATIONAL	Spain	10					
NATIONAL	Portugal	10					
NATIONAL	Belgium	10					



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

	NATIONAL	Poland	10.0						
	ACGIH		10						
<b>Predicted No Effect Concentration (PNEC) values</b>									
Plant	Ingredient	Component	CAS-No.	PNEC LIMIT	Exposure Route	Exposure Frequency	Remark		
NONE	SUBSC00232	Titanium dioxide	13463-67-7	1.000 mg/l	Fresh Water				
				1000.000 mg/kg	Freshwater sediments				
				0.127 mg/l	Marine water				
				100.000 mg/kg	Marine water sediments				
				100.000 mg/kg	Soil (agricultural)				
				100.000 mg/kg	Microorganisms in sewage treatments				
				1667.000 mg/kg	Food chain				
<b>Derived No Effect Level (DNEL) values</b>									
Plant	Ingredient	Component	CAS-No.	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
NONE	SUBSC00232	Titanium dioxide	13463-67-7	10.000	10.000 mg/m3		inhalative		Long Term, local effects
						700.000 mg/m3	Oral		Long Term, systemic effects

## 8.2 Exposure controls

**Eye/face protection:** Eye glasses with side protection.

**Skin protection:** Chemical protection clothing.

**Hand protection:** NBR (nitrile rubber).

**Respiratory protection:** Filtering Half-face mask (DIN EN 149).

### Hygienic and Technical measures

Not Available

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State Liquid

Appearance: Paste or puree, White

Odour: Characteristic

Odour threshold: Not Available

pH: Not Available

Melting point/ range: Not Available



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

Boiling point/ range: Not Available  
Flash point: Not Applicable  
Evaporation rate: Not Available  
Upper/lower flammability or explosive limits: Not Available  
Vapour density: Not Available  
Vapour pressure (20°C): Not Available  
Density (20°C): Not Available  
Water solubility: Insoluble  
Lipid solubility: Fully miscible  
Partition coefficient (n-octanol/water): Not Available  
Auto-ignition temperature: Not Available  
Decomposition temperature: Not Available  
Viscosity (20°C): Not Available  
Explosive properties: Not Available  
Oxidising properties: Not Available  
Flammability (Solid, Gas): Not Available  
Volatile Organic compounds - VOCs = Not Available

**9.2 Other information**

Substance group relevant properties: Not Available  
Miscibility: Not Available  
Conductivity: Not Available

**10. Stability and reactivity**

**10.1 Reactivity**

Stable under normal conditions.

**10.2 Chemical stability**

Data not Available.

**10.3 Possibility of hazardous reactions**

Burning produces carbon monoxide and/or carbon dioxide.

**10.4 Conditions to avoid**

Stable under normal conditions of temperature and pressure.

**10.5 Incompatible materials**

Avoid strong oxidizing agents, peroxides, acids, alkali metals.

**10.6 Hazardous decomposition products**

Burning produces carbon monoxide and/or carbon dioxide.

**11. Toxicological information**

**11.1 Information on toxicological effects**



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

---

**Toxicological Information of the Preparation**

- a) respiratory or skin sensitisation Skin Sensitization Negative - Repeated Insult Patch Test (Marzulli & Maibach)
- b) skin corrosion/irritation Skin Irritant No Irritant effect - (EpiDerm Test - Human Reconstructed Epidermis)
- c) serious eye damage/irritation Eye Irritant Non irritating, minimal – (EpiOcular Tissue)

**Toxicological information on main components of the mixture:**

Titanium dioxide a) acute toxicity LD50 Oral Rat > 10000.00000 mg/kg

**If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.**

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

## 12. Ecological information

### 12.1 Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-toxicity:

#### List of Eco-Toxicological properties of the components

#### Ecotox Data

60-70 % Titanium dioxide CAS: 13463-67-7 – EINECS: 236-675-5

- a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss > 100.00000 mg/l 96h OECD 203
- b) Aquatic acute toxicity : LC50 Fish Cyprinodon variegatus > 10000.00000 mg/l 96h OECD 203
- c) Aquatic acute toxicity : LC50 Daphnia Daphnia magna > 100.00000 mg/l 48h OECD 202

### 12.2 Persistence and degradability

Not Available

### 12.3 Bioaccumulative potential

Not Available

### 12.4 Mobility in soil

Not Available



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

---

**12.5 Results of PBT and vPvB assessment**

No PBT Ingredients are present

**12.6 Other adverse effects**

Not Available

**13. Disposal considerations**

**13.1 Waste treatment methods**

Recover if possible. In so doing, comply with the local and national regulations currently in force.

**14. Transport information**

**14.1 UN number**

N/A

**14.2 UN proper shipping name**

ADR-Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

**14.3 Transport hazard class(es)**

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

**14.4 Packing Group**

ADR-Packing Group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

**14.5 Environmental hazards**

Toxic Ingredients Qty: 0.00

High Toxicity Ingredients Qty: 0.00

Marine pollutant: No

Environmental Pollutant: No

**14.6 Special Precautions for User**

Road and Rail (ADR-RID):

ADR-Label: N/A

ADR-Upper number: N/A

ADR-Special Provisions: N/A

ADR-Transport category (Tunnel restriction code): N/A

Air (IATA):

IATA-Passenger Aircraft: N/A





**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

IATA-Cargo Aircraft: N/A  
IATA-Label: N/A  
IATA-Sub Risk: N/A  
IATA-Erg: N/A  
IATA-Special Provisioning: N/A

Sea (IMDG):  
IMDG-Stowage Code: N/A  
IMDG-Stowage Note: N/A  
IMDG-Sub Risk: N/A  
IMDG-Special Provisioning: N/A  
IMDG-Page: N/A  
IMDG-Label: N/A  
IMDG-EMS: N/A  
IMDG-MFAG: N/A

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not Available

## 15. Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Regulation (EU) n. 2015/1221 (ATP 7 CLP)  
Regulation (EU) n. 2016/918 (ATP 8 CLP)  
Regulation (EU) n. 2016/1179 (ATP 9 CLP)  
Regulation (EU) n. 2015/830 (Annex II)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: None

Restrictions related to the substances contained: None

Provisions related to directive EU 2012/18 (Seveso III):

German Water Hazard Class.

Not Available

SVHC Substances:



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Titanium dioxide Paste**

---

Not Available

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for the mixture.

## 16. Additional information

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

### 16.1 Abbreviations

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

LTE: Long-term exposure.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STE: Short-term exposure.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

### 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.