



# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product name

**TRAVEL TO PLUTO**

Version 1.1

---

Exact percentages are being withheld as a trade secret.

*Tin dioxide (>= 1 % - < 5 %)*

18282-10-5

Exact percentages are being withheld as a trade secret.

---

## SECTION 4. First aid measures

### Description of first-aid measures

#### *Inhalation*

After inhalation: fresh air.

#### *Skin contact*

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

#### *Eye contact*

After eye contact: rinse out with plenty of water.

#### *Ingestion*

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

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

We have no description of any toxic symptoms.

### Indication of any immediate medical attention and special treatment needed

No information available.

---

## SECTION 5. Fire-fighting measures

### Extinguishing media

#### *Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

### Advice for firefighters

#### *Special protective equipment for fire-fighters*

In the event of fire, wear self-contained breathing apparatus.

---

## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

---

Product name **TRAVEL TO PLUTO**

**Environmental precautions**

No special precautionary measures necessary.

**Methods and materials for containment and cleaning up**

Observe possible material restrictions (see sections 7 and 10).  
 Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**SECTION 7. Handling and storage**

**Precautions for safe handling**

Observe label precautions.

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

Tightly closed. Dry.  
 Storage temperature: no restrictions.

**SECTION 8. Exposure controls/personal protection**

**Exposure limit(s)**

*Ingredients*

Basis	Value	Threshold limits	Remarks
<i>silicon dioxide 7631-86-9</i>			
NIOSH/GUIDE	Recommended exposure limit (REL):	6 mg/m <sup>3</sup>	
Z1A	Time Weighted Average (TWA):	6 mg/m <sup>3</sup>	
	Time Weighted Average (TWA):	20millions of particles per cubic foot of air	
	Time Weighted Average (TWA):	0.8 mg/m <sup>3</sup>	The exposure limit is calculated from the equation, 80/(%SiO <sub>2</sub> ), using a value of 100% SiO <sub>2</sub> . Lower values of % SiO <sub>2</sub> will give higher exposure limits.

*Tin dioxide 18282-10-5*



## SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product name

**TRAVEL TO PLUTO**

Version 1.1

---

Color	light yellow
Odor	odorless
Odor Threshold	Not applicable
pH	8.0 - 12.0 at 100 g/l 68 °F (20 °C) (slurry)
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.
Density	2.4 - 2.8 g/cm <sup>3</sup> at 68 °F (20 °C)
Relative density	No information available.
Water solubility	at 68 °F (20 °C) practically insoluble
Partition coefficient: n- octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Bulk density	170 - 210 kg/m <sup>3</sup>

SAFETY DATA SHEET  
according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product name

**TRAVEL TO PLUTO**

Version 1.1

---

Particle size

Particle size  
5.0 - 60.0 µm

Mean particle size  
16.0 - 23.0 µm

---

**SECTION 10. Stability and reactivity**

**Reactivity**

See below

**Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

**Possibility of hazardous reactions**

no information available

**Conditions to avoid**

no information available

**Incompatible materials**

no information available

**Hazardous decomposition products**

no information available

---

**SECTION 11. Toxicological information**

**Information on toxicological effects**

*Likely route of exposure*

Inhalation, Eye contact, Skin contact, Ingestion

*Target Organs*

Eyes

Respiratory system

*Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

*Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

*Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

**Carcinogenicity**

IARC

Group 2B: Possibly carcinogenic to humans  
rutile 1317-80-2

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product name

**TRAVEL TO PLUTO**

Version 1.1

ACGIH

equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

## Further information

The results of animal experiments using pigments of this type indicate no toxicologically relevant properties. Since the substance is poorly absorbed, no systemic effects are to be anticipated. Inhalation of the dusts should be avoided as even inert dusts may impair respiratory organ functions. The individual test results were as follows: skin tolerance (rabbit): no irritant effect; eye irritation test (rabbit): no irritant effect; LD<sub>50</sub> (oral, rat): not determinable; all animals still alive after 5,000 mg/kg.

Subchronic toxicity (rat): no appreciable findings up to 20 000 ppm.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

Handle in accordance with good industrial hygiene and safety practice.

## Ingredients

### *silicon dioxide*

#### *Acute dermal toxicity*

Rabbit: > 5,000 mg/kg (IUCLID)

#### *Skin irritation*

Rabbit

Result: No irritation

OECD Test Guideline 404

#### *Eye irritation*

Rabbit

Result: No eye irritation

OECD Test Guideline 405

#### *Sensitization*

Sensitization test: Guinea pig

Result: negative

(IUCLID)

#### *Germ cell mutagenicity*

##### *Genotoxicity in vitro*

Ames test

Salmonella typhimurium

Result: negative

(IUCLID)

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

(IUCLID)

### *rutile*

No information available.

### *Tin dioxide*

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product name

**TRAVEL TO PLUTO**

Version 1.1

---

*Acute oral toxicity*

LD50 Rat: > 20,000 mg/kg (RTECS)

---

## SECTION 12. Ecological information

### Ecotoxicity

No information available.

### Persistence and degradability

No information available.

### Bioaccumulative potential

No information available.

### Mobility in soil

No information available.

### Ingredients

#### *silicon dioxide*

*Toxicity to daphnia and other aquatic invertebrates*

EC0 Daphnia magna (Water flea): >= 10,000 mg/l; 24 h

OECD Test Guideline 202

*Toxicity to algae*

IC50 Pseudokirchneriella subcapitata (green algae): 440 mg/l; 72 h (IUCLID)

NOEC Pseudokirchneriella subcapitata (green algae): 60 mg/l; 72 h (IUCLID)

#### *rutile*

No information available.

#### *Tin dioxide*

*Toxicity to daphnia and other aquatic invertebrates*

NOEC Daphnia magna (Water flea): > 100 mg/l; 48 h (above the solubility limit in the test medium) (own results)

EC50 Daphnia magna (Water flea): > 100 mg/l; 48 h (above the solubility limit in the test medium) (own results)

#### *Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

---

## SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.



**SECTION 14. Transport information**

**Land transport (DOT)**

Not classified as dangerous in the meaning of transport regulations.

**Air transport (IATA)**

Not classified as dangerous in the meaning of transport regulations.

**Sea transport (IMDG)**

Not classified as dangerous in the meaning of transport regulations.

---

**SECTION 15. Regulatory information**

**United States of America**

**SARA 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 302**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

**DEA List I**

Not listed

**DEA List II**

Not listed

**US State Regulations**

**Massachusetts Right To Know**

*Ingredients*

silicon dioxide

Tin dioxide

**Pennsylvania Right To Know**

*Ingredients*

silicon dioxide

rutile

**New Jersey Right To Know**

*Ingredients*

silicon dioxide

Tin dioxide

**California Prop 65 Components**

WARNING: this product contains a chemical known in the State of California to cause cancer.

---

**SAFETY DATA SHEET**  
according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product name **TRAVEL TO PLUTO**

Version 1.1

---

*Ingredients*

rutile

**Notification status**

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

KOREA: Not in compliance with the inventory

---

**SECTION 16. Other information**

**Training advice**

Provide adequate information, instruction and training for operators.

**Labeling**

*Precautionary Statements*

Prevention

P260 Do not breathe dust.

Safety data sheet available on request.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

Revision Date 03/03/2015

---

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.