SAFETY DATA SHEET
TITANIUM DIOXIDE TECH

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: TITANIUM DIOXIDE TECH
Product number: 2808
REACH registration number: 01-2119489379-17-XXXX
CAS number: 13463-67-7
EC number: 236-675-5

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

Identified uses: General chemical reagent
Uses advised against: No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier: Reagent Chemical Services
11b - 13 Aston Fields Road
Whitehouse Industrial Estate
Runcorn
Cheshire WA7 3DL
T: 01928 716903 (08.30 - 17.00)
F: 01928 716425
E: info@reagent.co.uk

1.4. Emergency telephone number

Emergency telephone: OHES Environmental Ltd 24-7
Tel. 0333 333 9939 (24 hour)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical hazards: Not Classified
Health hazards: Not Classified
Environmental hazards: Not Classified

Classification (67/548/EEC or 1999/45/EC)

2.2. Label elements

EC number: 236-675-5
TITANIUM DIOXIDE TECH

Hazard statements
NC Not Classified

2.3. Other hazards
This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances
Product name: TITANIUM DIOXIDE TECH
REACH registration number: 01-2119489379-17-XXXX
CAS number: 13463-67-7
EC number: 236-675-5

SECTION 4: First aid measures

4.1. Description of first aid measures
General information: Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Ingestion: Rinse mouth thoroughly with water. Remove any dentures. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin contact: Brush off loose particles from skin. Remove affected person from source of contamination. Rinse immediately with plenty of water.
Eye contact: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 10 minutes.
Protection of first aiders: First aid personnel should wear appropriate protective equipment during any rescue.

4.2. Most important symptoms and effects, both acute and delayed
General information: See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation: Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Ingestion: May cause discomfort if swallowed. Nausea, vomiting.
Skin contact: Prolonged contact may cause dryness of the skin.
Eye contact: Dust may cause slight irritation.

4.3. Indication of any immediate medical attention and special treatment needed
Notes for the doctor: Treat symptomatically.
Specific treatments: No special treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media
TITANIUM DIOXIDE TECH

Suitable extinguishing media

The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards

None known.

Hazardous combustion products

Thermal decomposition or combustion products may include the following substances:

Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting

Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions

Insoluble in water. Aquatic toxicity is unlikely to occur. However, large or frequent spills may have hazardous effects on the environment. Collect spillage. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Reuse or recycle products wherever possible. Approach the spillage from upwind. Avoid generation and spreading of dust. Small Spillages: Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Large Spillages: Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use. Avoid handling which leads to dust formation.
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Advice on general occupational hygiene
Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions
Store away from incompatible materials (see Section 10). Store in accordance with local regulations.

Storage class
Unspecified storage.

7.3. Specific end use(s)

Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

Usage description
Use product under conditions described in this datasheet. Avoid exposure of operators and others who may be affected by its use. Avoid overuse of the product which would create waste and potential spillages. Always use recommended personal protective equipment. Only use the product for its intended use in a safe manner, do not use for other purposes.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. The following protection should be worn: Dust-resistant, chemical splash goggles.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection
Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures
Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Respiratory protection
Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3. Wear a suitable dust mask.
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Environmental exposure controls
Not regarded as dangerous for the environment.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>White/off-white.</td>
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<tr>
<td>Odour</td>
<td>No characteristic odour.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting point</td>
<td>1830°C</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Approx. 3000°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative density</td>
<td>3.7 - 4.2 @ °C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Insoluble in water.</td>
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<tr>
<td>Partition coefficient</td>
<td>Not applicable.</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not considered to be explosive.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Does not meet the criteria for classification as oxidising.</td>
</tr>
</tbody>
</table>

9.2. Other information

Other information
None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity
There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability
Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions
No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid
There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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10.6. Hazardous decomposition products

Hazardous decomposition products

Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects

Not regarded as a health hazard under current legislation.

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)

2,000.0

Species

Rat

Notes (oral LD₅₀)

Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀)

Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l)

5.09

Species

Rat

Notes (inhalation LC₅₀)

Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory sensitisation

Based on available data the classification criteria are not met.

Skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

IARC carcinogenicity

None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility

Based on available data the classification criteria are not met.

Reproductive toxicity - development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure
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STOT - repeated exposure
Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard
Not relevant. Solid.

General information
No specific health hazards known. Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion
May cause discomfort if swallowed. Nausea, vomiting.

Skin contact
Prolonged contact may cause dryness of the skin.

Eye contact
Dust may cause slight irritation.

Route of entry
Ingestion Inhalation Skin and/or eye contact

Target organs
No specific target organs known.

SECTION 12: Ecological Information

Ecotoxicity
Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity
Toxicity
Based on available data the classification criteria are not met.

Acute toxicity - fish
LC50, 96 hours: > 1000 mg/l, Pimephales promelas (Fat-head Minnow) Static, freshwater.

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: 1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants
NOEC, 72 hours: 100 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms
NOEC, 3 hours: 1000 mg/l, Activated sludge

12.2. Persistence and degradability
Persistence and degradability
The product contains inorganic substances which are not biodegradable.

12.3. Bioaccumulative potential
Bioaccumulative potential
No data available on bioaccumulation.

Partition coefficient
Not applicable.

12.4. Mobility in soil
Mobility
The product is insoluble in water.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment
This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects
Other adverse effects
None known.

7/10
SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information
The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods
Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

SECTION 14: Transport information

General
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number
Not classified.

14.2. UN proper shipping name
Not classified.

14.3. Transport hazard class(es)
Not classified.

Transport labels
No transport warning sign required.

14.4. Packing group
Not classified.

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
Not classified.

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

SECTION 15: Regulatory information

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

National regulations
Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.
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EU legislation


Guidance

ECHA Guidance on the Compilation of Safety Datasheets  
Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.  
IATA: International Air Transport Association.  
IMDG: International Maritime Dangerous Goods.  
CAS: Chemical Abstracts Service.  
ATE: Acute Toxicity Estimate.  
LC₅₀: Lethal Concentration to 50 % of a test population.  
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).  
EC₅₀: 50% of maximal Effective Concentration.  
PBT: Persistent, Bioaccumulative and Toxic substance.  
vPvB: Very Persistent and Very Bioaccumulative.

General information

This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons.

Key literature references and sources for data


Training advice

Read and follow manufacturer's recommendations. Only trained personnel should use this material.

Revision comments

Full revision

Revision date

11/03/2019

Revision

2

Supersedes date

03/11/2014

SDS number

21109

Risk phrases in full

Not classified.
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