# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 **Product identifiers**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Titanium Dioxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.</td>
<td>13463-67-7</td>
</tr>
</tbody>
</table>

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

- Identified uses: Laboratory chemicals, Industrial & for professional use only.

1.3 **Details of the supplier of the safety data sheet**

<table>
<thead>
<tr>
<th>Company</th>
<th>Central Drug House (P) Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7/28 Vardaan House</td>
</tr>
<tr>
<td></td>
<td>New Delhi-10002</td>
</tr>
<tr>
<td></td>
<td>INDIA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Telephone</th>
<th>+91 11 49404040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td><a href="mailto:care@cdhfinechemical.com">care@cdhfinechemical.com</a></td>
</tr>
</tbody>
</table>

1.4 **Emergency telephone number**

| Emergency Phone # | +91 11 49404040 (9:00am - 6:00 pm) [Office hours] |

## 2. HAZARDS IDENTIFICATION

2.1 **Classification of the substance or mixture**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 **Label elements**

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 **Other hazards** - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances**

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>Titanium dioxide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Titania</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formula</th>
<th>O₂Ti</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>79.89 g/mol</td>
</tr>
</tbody>
</table>

## 4. FIRST AID MEASURES

4.1 **Description of first aid measures**
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIREFIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture
no data available

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
The product itself does not burn.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters
Components with workplace control parameters
8.2 Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: powder
   Colour: white

b) Odour
   odourless

c) Odour Threshold
   no data available

d) pH
   no data available

e) Melting point/freezing point
   Melting point/range: > 350 °C

f) Initial boiling point and boiling range
   no data available

g) Flash point
   not applicable

h) Evaporation rate
   no data available

i) Flammability (solid, gas)
   no data available

j) Upper/lower
   no data available

flamminability or explosive limits

k) Vapour pressure
   no data available

l) Vapour density
   no data available

m) Relative density
   4.26 g/mL at 25 °C

n) Water solubility
   no data available

o) Partition coefficient: n-octanol/water
   no data available

p) Autoignition temperature
   no data available
9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available

10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
Strong acids

10.6 Hazardous decomposition products
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - rat - > 10.000 mg/kg
LD50 Dermal - rabbit - > 10.000 mg/kg

Skin corrosion/irritation
Skin - Human - Mild skin irritation - 3 h

Serious eye damage/eye irritation
Eyes - rabbit - No eye irritation

Respiratory or skin sensitization
Will not occur

Germ cell mutagenicity
Genotoxicity in vitro - Hamster - ovary
Micronucleus test
Genotoxicity in vitro - Hamster - Lungs
DNA inhibition
Genotoxicity in vitro - Hamster - ovary
Sister chromatid exchange
Genotoxicity in vivo - mouse - Intraperitoneal
Micronucleus test

Carcinogenicity
Carcinogenicity - rat - Inhalation
Tumorogenic:Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors.

Carcinogenicity - rat - Intramuscular
Tumorogenic:Tumors at site or application.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**
no data available

**Specific target organ toxicity - single exposure**
no data available

**Specific target organ toxicity - repeated exposure**
no data available

**Aspiration hazard**
no data available

**Potential health effects**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May be harmful if inhaled. May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Skin</td>
<td>May be harmful if absorbed through skin. May cause skin irritation.</td>
</tr>
<tr>
<td>Eyes</td>
<td>May cause eye irritation.</td>
</tr>
</tbody>
</table>

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information**

RTECS: Not available

12. **ECOLOGICAL INFORMATION**

12.1 **Toxicity**

- **Toxicity to fish**
  - LC50: other fish - > 1.000 mg/l - 96 h
- **Toxicity to daphnia and other aquatic invertebrates**
  - EC50: Daphnia magna (Water flea) - > 1.000 mg/l - 48 h
  - EC0: Daphnia magna (Water flea) - 1.000 mg/l - 48 h

12.2 **Persistence and degradability**
no data available

12.3 **Bioaccumulative potential**
no data available

12.4 **Mobility in soil**
no data available

12.5 **Results of PBT and vPvB assessment**
no data available

12.6 **Other adverse effects**
no data available

13. **DISPOSAL CONSIDERATIONS**

13.1 **Waste treatment methods**

**Product**
Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**
Dispose of as unused product.
14. TRANSPORT INFORMATION

14.1 UN number
   ADR/RID: -  
   IMDG: -  
   IATA: -

14.2 UN proper shipping name
   ADR/RID: Not dangerous goods
   IMDG: Not dangerous goods
   IATA: Not dangerous goods

14.3 Transport hazard class(es)
   ADR/RID: -  
   IMDG: -  
   IATA: -

14.4 Packaging group
   ADR/RID: -  
   IMDG: -  
   IATA: -

14.5 Environmental hazards
   ADR/RID: no  
   IMDG Marine pollutant: no
   IATA: no

14.6 Special precautions for user
   no data available

15. REGULATORY INFORMATION

   This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
   no data available

15.2 Chemical Safety Assessment
   no data available

16. OTHER INFORMATION

   Further information
   The above information is believed to be correct but does not purport to be all inclusive and shall be used
   only as a guide. The information in this document is based on the present state of our knowledge and is
   applicable to the product with regard to appropriate safety precautions. It does not represent any
   guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held
   liable for any damage resulting from handling or from contact with the above product. See
   www.cdhfinechemical.com for additional terms and conditions of sale.