

# SAFETY DATA SHEET

## TITANIUM DIOXIDE (RUTILE) OPTICAL CRYSTAL

According to Regulation (EC) No.1907/2006 (REACH)



Revision 2016 : Issued 12<sup>th</sup> October 2016

### 1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

#### 1.1. PRODUCT IDENTIFIERS:

Product Name: Titanium Dioxide TiO<sub>2</sub>  
Synonyms, Trade Names: Rutile

#### 1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified Uses: Optical Material for manufacture of Optical Components.

#### 1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **CRYSTRAN LTD**, 1 Broom Road Business Park, Poole, Dorset UK BH12 4PA  
☎ +44 1202 307650

#### 1.4. EMERGENCY TELEPHONE NUMBER

Emergency Phone: ☎ +44 1202 307650 (Monday to Friday 08:30 to 17:00 GMT)  
Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department. The attending health professional will be able to contact the National Poisons Information Service.

### 2. HAZARDS IDENTIFICATION

#### 2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

No Hazardous Product as specified in Directive 67/548/EEC

#### 2.2. LABEL ELEMENTS

None

#### 2.3. OTHER HAZARDS

None



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. SUBSTANCES

| Component Name   | CAS number | %    | EC number (EINECS) | EU index | UN number |
|------------------|------------|------|--------------------|----------|-----------|
| Titanium Dioxide | 13463-67-7 | 100% | 236-675-5          | -        | -         |

### 4. FIRST AID MEASURES

#### 4.1. DESCRIPTION OF FIRST AID MEASURES

GENERAL: Consult a doctor for specific advice.  
EYES: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.  
SKIN: Wash thoroughly with soap and water.  
INHALATION: Remove to fresh air.  
INGESTION: Wash out mouth thoroughly with water.

#### 4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Refer to Section 2.2 and to section 11.

#### 4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No Data.

### 5. FIRE FIGHTING MEASURES

#### 5.1. EXTINGUISHING MEDIA

Not Ignitable. Not Applicable

#### 5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

None

#### 5.3. ADVICE FOR FIREFIGHTERS

None

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wash site of spillage with water. Avoid making dust.

#### 6.2. ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage. Do not let product enter drains. Do not discharge to the environment.

#### 6.3. METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Take up and containerize for proper disposal. Containerize any cleaning materials used for proper disposal.

#### 6.4. REFERENCE TO OTHER SECTIONS

Dispose as in Section 13.

## CRYSTRAN LTD

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Registered in England No.2863378

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### 7. HANDLING AND STORAGE

#### 7.1. PRECAUTIONS FOR SAFE HANDLING:

No special precautions

#### 7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store at room temperature

#### 7.3. SPECIFIC END USES

Optical Material for Manufacture of Optical Components.

### 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

#### 8.1. CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL) = 10mg/m<sup>3</sup> total dust : 5mg/m<sup>3</sup> as respirable dust

#### EXPOSURE CONTROLS

Use of a laboratory coat is suggested. Safety goggles or safety glasses with side shields are required if there is any possibility of chipping or dust creation.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear glassy geometric shapes, no odour.

BOILING POINT (760mm Hg) > 2500°C

MELTING POINT: 1840°C

SPECIFIC GRAVITY: 4.26 g/mL

SOLUBILITY IN WATER: Practically insoluble.

FLASH POINT: Not Applicable

FLAMMABILITY: Not Applicable

EXPLOSIVE PROPERTIES: Not Applicable

VAPOUR PRESSURE: Negligible at 25°C

pH IN AQUEOUS SOLUTION: Not determined

#### 9.2. OTHER SAFETY INFORMATION

None

### 10. STABILITY AND REACTIVITY

#### 10.1. REACTIVITY

Stable

#### 10.3. POSSIBILITY OF HAZARDOUS REACTIONS

None known

#### 10.5. INCOMPATIBLE MATERIALS

None

#### 10.2. CHEMICAL STABILITY

Stable under normal conditions of storage and use

#### 10.4. CONDITIONS TO AVOID

None known

#### 10.6. HAZARDOUS DECOMPOSITION PRODUCTS

None known

### 11. TOXICOLOGICAL INFORMATION

#### 11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Care must be exercised when machining and creating dust or particles. Inhalation of dust may irritate respiratory system.

TOXIC DOSE - LD50 > 10000mg/kg

CARCINOGENICITY: No evidence of carcinogenic properties.

MUTAGENICITY/TERATOGENICITY: No evidence of reproductive effects.

### 12. ECOLOGICAL INFORMATION

#### 12.1. TOXICITY

No Data

#### 12.5. RESULTS OF PBT AND vPvB ASSESSMENT

Not required or conducted

#### 12.2. PERSISTENCE AND DEGRADABILITY

No Data

#### 12.6. OTHER ADVERSE AFFECTS

No Data

#### 12.3. BIOACCUMULATIVE POTENTIAL

No Data

#### 12.4. MOBILITY IN SOIL

No Data

### 13. DISPOSAL CONSIDERATIONS

#### 13.1. WASTE TREATMENT METHODS

Chemical residues are generally classified as special waste, and are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.

### 14. TRANSPORT INFORMATION

#### 14.1. UN NUMBER: None

#### 14.2. UN PROPER SHIPPING NAME:

Not subject to transportation regulations.

#### 14.3. TRANSPORT HAZARD CLASS: None

#### 14.4. PACKING GROUP: None

#### 14.5. ENVIRONMENTAL HAZARDS: None

#### 14.6. SPECIAL PRECAUTIONS FOR USER: None

#### 14.7. TRANSPORT IN BULK MARPOL / IBC: No Data

### 15. REGULATORY INFORMATION

#### 15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

None

### 16. OTHER INFORMATION

REVISION DATE: 12<sup>th</sup> October 2016 ©2016 Crystran Ltd.

The above information is believed to be correct but does not purport to be all inclusive and must be used only as a guide.

## CRYSTRAN LTD

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