

# **PRODUCT SAFETY DATA SHEET**

## **CERIUM OXIDE 1/3**

### **REF; TP 1264**

Complying with Directives 91/155/EEC March 21, 1991  
Last revisions – April 19, 2005

(TRENT / REGIPOL, All Grades)

### **1. Manufacturer or Supplier**

Reliable Techniques, ST5 7AS

### **2. Composition**

Cerium Oxide (CeO<sub>2</sub>CAS 1306-38-3). A naturally occurring blend of rare earth oxides/fluorides and oxyfluorides.

### **3. Hazards identification**

This material, in common with other Rare Earth oxides is of low acute toxicity and is not thought to present an acute hazard. Users should note that the long-term inhalation of Rare Earth compounds (oxides) is reported as producing Pneumoconiosis.

### **4. First aid measures**

The powder will irritate the eyes because of its abrasive properties. Inhalation will cause coughing and sneezing and may have long-term effects on the lungs. The compound is not readily absorbed from the gastro-intestinal tract.

First aid treatment:-

- Inhalation: Remove from exposure and allow to rest in fresh air. If symptoms persist seek medical advice.
- Ingestion: Rinse mouth with water and give water or milk to drink. Do not induce vomiting.
- Eyes: Irrigate with water or isotonic saline solution for 15 minutes. If symptoms persist seek medical advice.
- Skin: Clean easily from skin by thorough washing with mild soap and water. If irritation or redness develops seek medical advice.

## 5. Fire fighting measures

Not combustible. No special fire-fighting procedures are necessary. Use any extinguishing agent suitable for the surrounding fire. Firefighters should avoid dust generated by fire-fighting efforts.

## 6. Accidental release measures

Collect in a suitable container for re-use, re-cycling or for disposal in accordance with local, county, state or national regulations. Minimize dust generation. Decontaminate by removing dust with a suitable vacuum cleaner.

## 7. Handling and storage

### 7.1 Handling

Good industrial hygiene practices should be observed. Use only under conditions of good local ventilation. Avoid contact with skin and eyes. Do not eat, drink, smoke or apply cosmetics whilst using this material.

### 7.2 Storage

Locate in a closed container in a cool dry chemical store.

## 8. Exposure controls/Personal protection

No Occupational Exposure Standards have been established for this material. Users are advised to minimize exposure. If necessary appropriate filter-type mask, chemically resistant gloves and suitable eye protection should be worn.

## 9. Physical and chemical properties

|                       |                         |
|-----------------------|-------------------------|
| Appearance:           | Off white yellow powder |
| Odour:                | No odour                |
| pH:                   | Typically 7-9           |
| Boiling point:        | No data                 |
| Melting point:        | 2600°C approx.          |
| Flash point:          | Not applicable          |
| Flammability:         | Not flammable           |
| Auto-flammability:    | Not applicable          |
| Explosive properties: | Not explosive           |
| Oxidizing properties: | Not oxidizing           |

## CERIUM OXIDE

|                        |                                  |
|------------------------|----------------------------------|
| Vapour pressure:       | No data                          |
| Relative density:      | 7.132                            |
| Solubility:            | Water – insoluble. Fat – no data |
| Partition coefficient: | No data                          |

### **10. Stability and reactivity**

This material is supplied in an air stable condition. At high temperatures (fire) product may release harmful oxides and/or fluorides.

### **11. Toxicological information**

No specific toxicological data is available for this material. One report indicates Rare Earth oxides are tolerated by female rats at 1000 mg/kg. In general the absorption of Rare Earth oxides following ingestion does not exceed 0.05%, however the oral intake of 2gm/kg is reported as causing mucosal injury. Reports of over exposure to fumes of Rare Earth metals, presumably as oxides, indicate inhalation may cause headaches and nausea. Chronic over-exposure is reported as producing pneumoconiosis.

### **12. Ecological information**

There is no data available for this material but it is not thought to present an environmental hazard. Some aquatic plants are reported as accumulating Rare Earth metals.

### **13. Disposal considerations**

The final disposal of this material should be in accordance with all local and national regulations. Plastic buckets would be better served being reused after simple washing with warm soapy water.

### **14. Transport information**

Not restricted.

### **15. Regulatory information**

|                 |      |
|-----------------|------|
| EC supply:      | None |
| Risk phrases:   | None |
| Safety phrases: | None |

All recipients should be aware of any other national measures that may be relevant.

## **16. Relevant legislation**

Health and Safety at Work Act

Chemical (Hazard Information and Packing) Regulations (CHIP)

Control of Substances Hazardous to Health Regulations

Environmental Protection Act (EPA)

Duty of Care Regulations (Section 34 of EPA)

## **Other**

The information contained in this document is believed to be correct as of the date issued. However no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed/implied regarding accuracy of completeness of this information. The results obtained from the use of this information or this product, the safety of this product, or the hazard related to its use. The information and product are furnished on the condition that the person receiving them shall make their own determinations as to the suitability of the product for their particular use and on the condition they assume the risk of the same thereof.