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Safety data sheet(**Cerium Oxide**)

Revision date: 2023.01.22

1、 Product and Company Identification:

Product name:	Cerium Oxide
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	Sizen Limited
Street:	Xiaoxiang North Road, Yuelu District
City:	Changsha
Zip Code:	410013
Country:	China
Tel #	+86 731-84472418

2、 Product Identification :

Active Identification : Cerium Oxide

Formula : CeO₂

CAS No. : 1306-38-3

COMPOSITION: Cerium Oxide/REO 99.99%

3、 Hazards identification:

EMERGENCY OVERVIEW

Appearance: light yellow powder

Warning! May cause eye and skin irritation, May cause respiratory and digestive tract irritation.
May cause blood abnormalities.

Potential Health Effects

Eye: May cause eye irritation. Exposure to particulates or solution may cause conjunctivitis, ulceration, and corneal abnormalities.

Skin: May cause skin irritation. Exposure may cause formation of skin

Ingestion: May cause irritation of the digestive tract. May cause headache, fever, nausea, abdominal pain/muscle pain/and bloody urine. In addition, substance has anticoagulant effect or/blood.

Inhalation: May cause respiratory tract irritation. May cause effects similar to those described for ingestion.

Chronic: Repeated exposure may cause pulmonary inflammation and hyperemia (an excess of blood in a part).

4、 First Aid Measures:

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes, Get medical aid if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

5、 Fire Fighting Measures:

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, Irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability : 0 ; Instability : 0

6、 Accidental Release Measures:

General Information: Use proper personal protective equipment as indicated in 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions, Provide ventilation.

7、 Handling and Storage:

Handling: Wash thoroughly after handling, Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes, Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

8、 Exposure Controls, Personal Protection:

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment:

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

9、 Physical and Chemical Properties:

Physical State: Powder

Odor: none reported

pH: Alkaline.

Vapor Pressure: Negligible.

Vapor Density: Not available.

Evaporation Rate: Negligible.

Viscosity: Not available,

Boiling Point: 7592 deg F

Freezing/Melting Point: 4199 deg F

Decomposition Temperature: Not available.

Solubility: Decomposes.

Density: 1329/cm³

Molecular Formula: CeO₂

Molecular Weight: 325.8092

10、 Stability and Reactivity :

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, dust generation, exposure to moist air or water.

Incompatibilities with Other Materials: Moisture, oxidizing agents, carbon dioxide, strong acids.

Hazardous Decomposition Products: Lanthanum hydroxide.

Hazardous Polymerization: Has not been reported.

11、 Toxicological Information :

Eye Irritation: No information is known,.

Skin Irritation: No information is known.

Oral LD50: 4184 mg/kg (Rat).

Dermal LD50: No information is known.

Inhalation LC50: No information is known.

Skin Sensitization: No information is known.

Chronic Toxicity Studies: Lanthanide salts have been known to increase the blood coagulation rate. Exposure causes increased sensitivity to heat, itching and skin lesions.

Mutagenicity Data: No information is known.

Reproductive/Teratology Data: No information is known.

Carcinogenicity Data: No information is known.

12、 Ecological Information :

Ecotoxicity: No data available. No information available.

Environmental: No information reported.

Physical: No information available.

Other: None.

13、 Disposal Considerations :

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14、 Transport Information :

<u>Road and Rail Transport</u>	Not Regulated
<u>IMDG/IMO</u>	Not regulated
<u>IATA</u>	Not regulated
Special Precautions for User	No special precautions required

15、 Other Information :

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

16 、 Issue Data :

Prepared By	Quality Department
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