

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name	Cerium dioxide
CAS number	1306-38-3
Synonyms	No information available

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

Identified uses	Laboratory chemicals
-----------------	----------------------

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

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

#### 1.4 Emergency telephone

<b>Emergency Phone #</b>	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.2 GHS Label elements, including precautionary statements

Pictogram	None needed
-----------	-------------

Signal Word                      None needed

Hazard statements              None needed

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Cerium oxide	-	1306-38-3	>95%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

**If inhaled**                      Remove from exposure, lie down. Remove to fresh air.

**In case of skin contact**      Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**In case of eye contact**        Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**If swallowed**                    Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If possible drink milk afterwards.

### 4.2 Most important symptoms and effects, both acute and delayed

No information available

### 4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**                      Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**                    No information available

### 5.2 Specific hazards arising from the substance or mixture

No information available

### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

### 5.4 Further information

**Flash Point** No information available

**Autoignition Temperature** No information available

#### Explosion limits

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

#### NFPA

Health	Flammability	Instability	Physical hazards
0	0	0	N/A

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

### 6.2 Environmental precautions

See section 12 for additional Ecological information.

### 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal.

### 6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Precautions on safe handling

Avoid contact with skin and eyes.

#### Hygiene measures

Avoid contact with skin and clothing. Remove and wash contaminated clothing and gloves, include the inside, before re-use.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

### Incompatibilities

Strong oxidizing agents. Oxidizing agent.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### 8.2 Exposure controls

#### Appropriate engineering controls

None under normal use conditions.

#### Personal protective equipment

##### Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

##### Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

No protective equipment is needed under normal use conditions.

##### Control of environmental exposure

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Powder solid
Appearance	Light yellow
Odor	Odorless
Odor Threshold	No information available
pH	No information available

Melting Point/Range	2600 °C / 4712 °F
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	Not applicable
Flammability or explosive limit	No information available
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	7.13
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	Not applicable
Molecular Formula	Ce O2
Molecular Weight	172.12

## 9.2 Other safety information

No information available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None known, based on information available

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

None under normal processing

### 10.4 Conditions to avoid

Incompatible products

### 10.5 Incompatible materials

Strong oxidizing agents, oxidizing agent.

### 10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cerium oxide	>5000 mg/kg	>2000 mg/kg	>5.05 mg/L - 4h

**Skin corrosion/irritation**

No information available

**Serious eye damage/eye irritation**

No information available

**Respiratory or skin sensitization**

No information available

**Germ cell mutagenicity**

Not mutagenic in AMES test

**Carcinogenicity**

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Cerium oxide	1306-38-3	Not listed	Not listed	Not listed	Not listed	Not listed

**Specific target organ toxicity - single exposure**

None known

**Specific target organ toxicity - repeated exposure**

None known

**Reproductive toxicity**

No information available

**Chronic effects**

No information available

**11.2 Additional Information**

No information available

**SECTION 12: Ecological information****12.1 Toxicity**

Product		Species	Test Results
Cerium oxide	LC50	Freshwater Fish	>100 mg/L/96h
	EC50	Water Flea	>100 mg/L/48h

**12.2 Persistence and degradability**

Insoluble in water

**12.3 Bio accumulative potential**

No information available

**12.4 Mobility in soil**

Is not likely mobile in the environment due to its low water solubility

## 12.5 Results of PBT and vPvB assessment

No information available

## 12.6 Endocrine disrupting properties

No information available

## 12.7 Other adverse effects

No information available

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

**DOT (US)** Not regulated

**IMDG** Not regulated

**IATA** Not regulated

## SECTION 15: Regulatory information

**US federal regulations** This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not applicable

### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed

### **SARA 304 Emergency release notification**

Not regulated

### **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not regulated.

### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

#### **SARA 302 Extremely hazardous substance**

Not listed.

#### **SARA 311/312 Hazardous**

See section 2 for more information

#### **SARA 313 (TRI reporting)**

Not regulated

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act**

Not regulated

**FEMA Priority Substances Respiratory Health and Safety in the Flavor  
Manufacturing Workplace**

Not listed

**US state regulations**

**US. Massachusetts RTK - Substance List**

Not listed

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed

**California Proposition 65**

Not listed

**SECTION 16: Other information**

Issue date: 8/2/2024

Revision 0

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.