

# Material Safety Data Sheet

## Cerium(IV)oxide powder

Revision Date: 1/10/2016

Date Issued: 3/26/2018

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY / UNDERTAKING

<b>Product name</b>	Cerium(IV)oxide powder
<b>Product code</b>	NO-0017
<b>CAS</b>	1306-38-3
<b>REACH No. :</b>	A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
<b>Identified uses</b>	Laboratory chemicals, Manufacture of substances
<b>Supplier</b>	IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D – 74076 Heilbronn Germany
<b>Telephone</b>	+49 (0)7131-89839-0
<b>Fax</b>	+49 (0)7131-89839-109
<b>Emergency telephone</b>	+49 (0)176-84850874
<b>Email</b>	msds@iolitec.de

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Skin corrosion/irritation, Category 2, H315

Serious eye damage/Eye irritation, Category 2, H319

Specific Target Organ Toxicity - Single exposure: Respiratory tract irritation, Category 3, H335

# Material Safety Data Sheet

## Cerium(IV)oxide powder

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### Classification (67/548/EEC or 1999/45/EC)

Irritating to eyes, respiratory system and skin.

## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008, GHS)

Pictogram	
Signal word	Warning
Hazard statement(s)	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray .
P280	Wear protectic gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Caution - substance not yet tested completely.	
Supplemental Hazard Statements	none

### Labelling (67/548/EEC or 1999/45/EC)

Hazard symbol(s)	
R-phrases(s)	
R36/37/38	Irritating to eyes, respiratory system and skin.

# Material Safety Data Sheet

## Cerium(IV)oxide powder

Revision Date: 1/10/2016

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### S-phrase(s)

S22 Do not breathe dust.  
S24 Avoid contact with skin.  
S25 Avoid contact with eyes.  
Caution - substance not yet tested completely.

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Contents	Health(Class)	Risk(R/No.)
Cerium (IV)oxide	99.95%		Substance not yet fully tested!
<b>Formula</b>	<b>Molecular Weight</b>		
CeO <sub>2</sub>	172.12 g/mol		

### 4 FIRST AID MEASURES

**General** Contaminated clothing should be removed and washed before being reused.

**Inhalation** Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/ oxygen.

**Ingestion** Immediately rinse mouth and provide fresh air. Do not induce vomiting. Get medical attention immediately.

**Skin** Wash the skin immediately with soap and water.

**Eyes** Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

# Material Safety Data Sheet

## Cerium(IV)oxide powder

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### 5 FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Suitable: Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.
<b>Special fire fighting procedures</b>	No special procedures required.
<b>Unusual fire &amp; explosion hazards</b>	Possible emission of toxic fumes
<b>Protective measures in fire</b>	Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

### 6 ACCIDENTAL RELEASE MEASURES

<b>Personal precautions during spill</b>	Wear protective clothing and avoid inhalation of powder, fume and vapor as well as skin or eye contact.
<b>Precautions to protect environment</b>	Avoid washing into water courses. Avoid contaminating public drains or water supply.
<b>Spill cleanup methods</b>	Avoid contact with skin or inhalation of spillage, dust or vapor, Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

# Material Safety Data Sheet

## Cerium(IV)oxide powder

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### 7 HANDLING AND STORAGE

#### Handling precautions

Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### Storage precautions

Keep tightly closed.

### 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

# Material Safety Data Sheet

Cerium(IV)oxide powder

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## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Solid
<b>Melting Point</b>	2,600 °C
<b>SG/Density</b>	7.67 g/cm <sup>3</sup>
<b>Solubility in water</b>	insoluble

## 10 STABILITY AND REACTIVITY

<b>Stability</b>	Stable. Absorbs carbon dioxide from air.
<b>Conditions to avoid</b>	Strong oxidizing agents.
<b>Hazardous Decomposition</b>	N/A
<b>Products</b>	N/A

## 11 TOXICOLOGICAL INFORMATION

### Acute toxicity

LD50, oral, rat, 1000 mg/kg

LD50, intraperitoneal, mouse, 465 mg/kg

### Skin corrosion/irritation

no data available

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

# Material Safety Data Sheet

## Cerium(IV)oxide powder

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### 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

#### Ingestion

May be harmful if swallowed.

#### Inhalation

May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

#### Skin

May cause irritation

#### Eyes

May cause irritation

### Additional Information

RTECS: Not available

**Full Data on the toxicity of this product are not available. Hazardous properties cannot be excluded.**

## 12 ECOLOGICAL INFORMATION

Do not allow material to be released to the environment without proper governmental permits.

## 13 DISPOSAL CONSIDERATIONS

### Disposal method

Contact specialist disposal companies. Dissolve or mix the material with a combustible solvent and burn in a chemical

# Material Safety Data Sheet

## Cerium(IV)oxide powder

Revision Date: 1/10/2016

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incinerator equipped with an afterburner and scrubber.  
Dispose of in accordance with Local Authority requirements.  
Recover and reclaim or recycle, if practical.

### 14 TRANSPORT INFORMATION

<b>General</b>	Not classified as dangerous for transport purposes.
<b>Road transport notes</b>	Not classified as dangerous for road transport.
<b>Rail transport notes</b>	Not classified as dangerous for rail transport.
<b>Sea transport notes</b>	Not classified as dangerous for sea transport.
<b>Air transport notes</b>	Not classified as dangerous for air transport.

### 15 REGULATORY INFORMATION

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

#### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

no data available

#### **Chemical Safety Assessment**

no data available

#### **Country specific information:**

##### **Germany**

Substance No: 4464 (annex 3)

WGK 1 (Water hazard class 1): Low hazard to water. Do not allow to enter waters, waste water, or soil.

Classification according to the Administrative Regulation of Substances Hazardous to Water (VwVwS)



# Material Safety Data Sheet

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## 16 OTHER INFORMATION

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