

GHS Safety Data Sheet

SDS No. : CEO01PAEG

Date Issued: 2012/06/24

Section 1. Identification of the substance or mixture and of the supplier

1.1 Product Information

Product name: **CeO₂ Cerium(IV) oxide**

Product number:	Purity	Form	Size (mm) or Shape
CEO03PB	99.9 % (3N)	powder	—
CEO04PB	99.99 % (4N)	powder	—
CEO05PB	99.99 % (4N)up	powder	ca.0.2 μ m
CEO06PB	ca.80 %	powder	ca.10 μ m
—	99.9 % (3N)	grains	—
—	99.9 % (3N), others	rod/tablet	Various shapes, Various sizes
—	99.9 % (3N), others	target	Various shapes, Various sizes

1.2 Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd

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Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Specific target organ toxicity, single exposure ; Category 2 repeated exposure ; Category 1	No data available	Flammable solids : Not classified Pyrophoric solids : Not classified Self-heating substances and mixtures : Not classified Substances and mixtures which, in contact with water, emit flammable gases : Not classified

GHS Label: **C**



Pictograms or symbols

Warning word: Not applicable

Hazard information

May cause damage to organs (Lung)
**Causes damage to organs (Lung) through
prolonged or repeated exposure**

Description of precaution

Avoid breathing dust/fume. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling.
Use only outdoors or in well-ventilated area.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Store locked up.
Dispose of contents/ container in accordance with local/national regulations.

Additional hazard information :

With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

Chemical or common name:	Cerium(IV) oxide
Synonyms:	Cerium dioxide, Ceric oxide, Ceria
Chemical formula:	CeO ₂
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	1306-38-3
RTECS#:	FK6310000
TSCA inventory:	listed
EINECS:	2151504

Section 4. First aid measures

Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
Skin contact:	Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues.
Inhalation:	Remove the exposed person immediately and provide fresh air. Get medical attention.
Ingestion:	Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

Extinguishing media:	This product cannot catch fire. Use media appropriate for surrounding fire.
Fire fighting:	The product is nonflammable.

Section 6. Accidental release measures

(As for powdery product, and dusts originated from the product.)

Personal Precautions:	Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its dusts.
Environmental hazard precautions:	Shut off leak if without risk. Prevent flow out to river, etc. so as not to badly affect.
Method for containment and cleaning up:	Indoor leakage: Ventilate as much as possible until the cleaning is completed. Outdoor leakage: Work from the windward and evacuate the leeward crowd. Gather up, pack in closed container as much as possible. Carefully collect remnant and move to a safe place.

Section 7. Handling and storage**Precautions to be taken in handling:**

Safe handling:	Use protective wears and local ventilation equipment, if inhalation or skin contact is foreseen.
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Precautions to be taken in storage:

General precautions:	Store in a cool, dry place away from incompatible materials. Keep container or bottle tightly closed.
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Section 8. Exposure controls / personal protection

Exposure guideline:	ACGIH (2012) : No data available OSHA (2006) : No data available
Facility measures:	(In case of dust generating work.) Local ventilation of closed work room or total proper ventilation to prevent inhalation.
Protective ware:	Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, face shields, protective gloves. (In case of dust generating work.) Wear appropriate NIOSH/MSHA-approved respirator, air-supplied respirator, safety goggles, face shields, protective gloves, protective clothing, apron, including boots.

Section 9. Physical and chemical properties

Color and Form:	White ~pale yellow solid. (ca.80% : pink ~ reddish-brown solid)
Chemical formula:	CeO ₂
Atomic weight:	172.1
Melting point:	ca.2600 °C
Boiling point:	No data available
Density:	7.65 g/cm ³
Water solubility	Insoluble
Flammable:	non-flammable substance
Oxidation:	No data available

Section 10. Stability and reactivity

Stability:	Stable in closed container.
Reactivity	
Incompatibility:	Strong reducing agent, strong acids.
Condition to avoid:	Moisture, air, carbon dioxide.
Hazardous decomposition products:	No data available

Section 11. Toxicological information

Acute toxicity (Oral, dermal, inhalation: dusts) :	GHS : Not classified.; Falls below the lowest level. Oral rat LD ₅₀ >5000mg/kg Dermal rat LD ₅₀ > 2000mg/kg bw Inhalation(dusts) rat LC50 > 5.05mg/L (IUCLID(2000))
Skin corrosive / irritation:	GHS : Not classified.; Falls below the lowest level. Rabbit skin 0.5 g not irritating (IUCLID(2000))
Serious eyes damage / eye irritation:	GHS : Not classified.; Falls below the lowest level. Rabbit eye 0.1 g not irritating (IUCLID(2000))
Respiratory sensitization:	GHS : No data available
Skin sensitization:	GHS : No data available
Germ cell mutagenicity:	GHS : Not classified.; Falls below the lowest level.
Carcinogenicity:	GHS : No data available
Reproductive toxicity:	GHS : No data available

Specific target organ toxicity
—single exposure: GHS : Category 2 ; May cause damage to organs (Lung)

Specific target organ toxicity
—repeated exposure: GHS : Category 1 ;
Causes damage to organs (Lung) through prolonged or repeated exposure

Aspiration hazard: GHS : No data available

Other cautions: Mechanical stimulation by dust affects eyes, skin and respiratory system

Section 12. Ecological information

Ecotoxicity:
Hazards to the aquatic environment
—acute toxicity: GHS : No data available
—chronic toxicity: GHS : No data available

Hazardous the ozone layer: GHS : No data available
No Freon or Halon

Fish toxicity: No data available

Degradability: No data available

Bioaccumulative potential: Ce biological half-life 563 day,
Rate of absorption Oral = 0.0001 Respiratory tract = 0.25

Mobility in soil: No data available

Section 13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN classification: Non-hazards

UN number: None

HS code: 2846.10

Marine pollution: None

Precautions: Container should be transported in a secure position, in a well-ventilated vehicle.

Section 15. Regulatory information

TSCA inventory : listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.