

## GHS Material Safety Data Sheet

MSDS No. : COO01PAEG

Date Issued: 2012/10/15

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

#### 1.1 Product Information

**Product name:** CoO Cobalt(II) oxide

Product number:	Purity	Form	Size or Shape
COO08PB	99.7% (2N7)	powder	—
—	—	chips	Various sizes
—	99.9% (3N)	rod/tablet	5x5xt5 , 10x10xt5 , Various sizes
—	99.9% (3N)	target	101.6 xt5 , 152.4 xt5 , 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
Acute toxicity(Oral) : Category 3 Respiratory sensitization : Category 1 Skin sensitization : Category 1 Carcinogenicity : Category 2 Specific target organ toxicity, single exposure : Category 1, 2	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: T C



Pictograms or symbols

Warning word: DANGER

Hazard information	Description of precaution
<b>Toxic if swallowed</b> <b>May cause allergy or asthma symptoms or breathing difficulties if inhaled</b> <b>May cause an allergic skin reaction</b> <b>Suspected of causing cancer</b> <b>Cause damage to organs(Liver)</b> <b>May cause damage to organs(Heart)</b>	Obtain special instructions. Read and understand all safety precautions before handling. Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing dust/fume/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. Take off the contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. IF ON SKIN: Wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention. 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 :

Hazards mainly originate in dusting.

With respect to additional hazard information, see Section 11.

**Section 3. Composition / information on ingredients**

Chemical or common name:	Cobalt(II) oxide
Chemical formula:	CoO
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	1307-96-6
RTECS#:	GG2800000
TSCA inventory:	listed
EINECS:	2151546

**Section 4. First aid measures**

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

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 dust/ fume.
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:	Avoid unnecessary contacts with spills. 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): Cobalt and inorganic compounds 0.02 mg/m <sup>3</sup> (as Co) OSHA (2006): Cobalt metal, dust and fume 0.1 mg/m <sup>3</sup> (as Co)
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:	Solid, odorless.
Chemical formula:	CoO
Formula weight:	74.9
Melting point:	1830
Boiling point:	No data available
Density:	6.44 g/cm <sup>3</sup>
Water Solubility:	Insoluble
Flammable:	non-flammable substance
Oxidation:	No data available

### Section 10. Stability and reactivity

Stability:	Stable in closed container.
Reactivity	
Incompatibility:	No data available
Condition to avoid:	Air, oxygen
Hazardous decomposition products.:	Cobalt oxides fume

### Section 11. Toxicological information

Hazards mainly originate in dusting.

Acute toxicity(Oral):	GHS : Category 3 ; Toxic if swallowed CoO oral rat LD50 = 159 mg/kg (ATSDR(2004))
Acute toxicity(Dermal, inhalation) :	GHS : No data available
Skin corrosive / irritation:	GHS : No data available
Serious eyes damage / eye irritation:	GHS : No data available
Respiratory sensitization:	GHS : Category 1 ; May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin sensitization:	GHS : Category 1 ; May cause an allergic skin reaction
Germ cell mutagenicity:	GHS : No data available

Carcinogenicity:	GHS : Category 2 ; Suspected of causing cancer ACGIH(2012) A3 (Confirmed animal carcinogen with unknown relevance to humans) IARC(2012) 2B (Possibly carcinogenic to humans)
Reproductive toxicity:	GHS : No data available
Specific target organ toxicity —single exposure:	GHS : Category 1 ; Causes damage to organs (Liver) Category 2 ; May cause damage to organs (Heart)
Specific target organ toxicity —repeated exposure:	GHS : No data available
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
Hazards to the aquatic environment —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:	Co biological half-life 9.5 day, Rate of absorption oral =0.3, Respiratory tract=0.4

## 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.
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## Section 14. Transport information

UN number:	3288
IATA shipping name:	Toxic solid, inorganic, n.o.s.
IATA classification:	Hazardous Class 6.1 (Toxic substances)
IATA packing group:	III
HS code:	2822.00
Marine pollution:	None

## 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.