

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name	Cobalt Oxide
CAS number	1308-06-1
Synonyms	Tricobalt tetraoxide; cobaltic-cobaltous oxide; cobaltous oxide

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

Identified uses	Laboratory chemicals
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#### 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

Emergency Phone #	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)

Respiratory sensitization	Category 1
Carcinogenicity	Category 1B

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

Pictogram



Signal Word                      Danger

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause cancer by inhalation

Precautionary statements

Prevention    Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Avoid breathing dust/fume/gas/mist/vapors/spray

In case of inadequate ventilation wear respiratory protection

Response    IF exposed or concerned: Get medical attention/advice

Inhalation    IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Storage      Store locked up

Disposal      Dispose of contents/container to an approved waste disposal plant.

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

Harmful to aquatic life with long lasting effects

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Cobalt oxide	-	1308-06-1	>95%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

**If inhaled**                      Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**In case of skin contact**      Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician

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

**If swallowed**                      Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

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

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

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

Treat symptomatically

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** No information available

**Unsuitable extinguishing media** No information available

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

Do not allow run-off from fire-fighting to enter drains or water courses.

### 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.

### 5.4 Further information

**Flash Point** Not applicable

**Autoignition Temperature** Not applicable

#### Explosion limits

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No data available

**Sensitivity to Static Discharge** No data available

#### NFPA

Health	Flammability	Instability	Physical hazards
2	1	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. Avoid dust formation.

### 6.2 Environmental precautions

Should not be released into the environment. See section 12 for additional Ecological information.

Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system.

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

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed 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

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

##### Hygiene measures

Handle in accordance with good industrial hygiene practices.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage conditions

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

##### Incompatibilities

No information available

### SECTION 8: Exposure controls/personal protection

#### 8.1 Occupational exposure limits

##### US. ACGIH Threshold Limit Values

Component	Type	Value
Cobalt oxide	TWA	0.02 mg/m <sup>3</sup>

##### US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Cobalt oxide	TWA	0.02 mg/m <sup>3</sup>

#### 8.2 Exposure controls

##### Appropriate engineering controls

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

##### 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**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### **Control of environmental exposure**

Should not be released into the environment. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system.

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

Physical State	Powder solid
Appearance	Dark grey
Odor	No information available
Odor Threshold	No information available
pH	No information available
Melting Point/Range	895 °C
Boiling Point/Range	No information available
Evaporation Rate	Not applicable
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	6.11
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	Not applicable
Decomposition Temp	No information available
Viscosity	Not applicable
Molecular Formula	O4 Co3
Molecular Weight	240.8
VOC Content(%)	No information available
Oxidizing properties	No information available

### **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

### 10.6 Hazardous decomposition products

None under normal use conditions

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cobalt oxide	> 5 g/kg	> 2000 mg/kg	> 5.06 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

No information available

##### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Cobalt oxide	1308-06-1	Group 2B	Reasonably anticipated	A3	X	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
Cobalt oxide	EC50	Freshwater Algae	88 mg/L 72h
	LC50	Freshwater Fish	>136 mg/L 96h static
	EC50	Water Flea	>136 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

<b>DOT (US)</b>	Not regulated
<b>IMDG</b>	Not regulated
<b>IATA</b>	Not regulated

## SECTION 15: Regulatory information

**US federal regulations** This product is 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 applicable

**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)**  
Cobalt Oxide Threshold Values %: 0.1

### Other federal regulations

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

**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**

Listed

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

Listed

**California Proposition 65**

Not listed

**SECTION 16: Other information**

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**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.