

**MOLBASE**

Please enter CAS NO., Product Name, Formula

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[LITHIUM COBALT\(III\) OXIDE](#);**Formula:** [CoLiO2](#)**Exact Mass:** 97.93900**Molecular Weight:** 97.87300**PSA:** 40.13000**LogP:** -0.23760**Reference Price:** **\$74/kg** [Inquiry Now](#)**Recommended Suppliers****guangdong hu**  
Purity:  
Lead 1**Jiangsu hu**  
Purity:  
Lead 1**shanghai hu**  
Purity:  
Lead 1**jin jian hu**  
Purity:  
Lead 1**Hangzhou hu**  
Purity:  
Lead 1

<	<a href="#">Overview</a>	<a href="#">Properties</a>	<a href="#">Synthesis Route</a>	<a href="#">Precursor and ...</a>	<a href="#">Safety Info</a>	<a href="#">MSDS</a>	<a href="#">NMR Spectrum</a>	>
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**Lithium Cobalt Oxide 12190-79-3 MSDS****Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE****Product identifiers**

Product name : Lithium cobalt(III) oxide

CAS-No. : 12190-79-3

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Manufacture of substances

**Section 2. HAZARDS IDENTIFICATION****Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Skin sensitization (Category 1)

Carcinogenicity (Category 1B)

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

May cause sensitization by inhalation and skin contact.

**Label elements****Labelling according Regulation (EC) No 1272/2008 [CLP]**

Pictogram

Signal word Danger

Hazard statement(s)

H317 May cause an allergic skin reaction.

H350 May cause cancer.

Precautionary statement(s)

P201 Obtain special instructions before use.

P280 Wear protective gloves.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard none

Statements

Restricted to professional users.

**According to European Directive 67/548/EEC as amended.**

Hazard symbol(s)

R-phrases(s)

R42/43 May cause sensitization by inhalation and skin contact.

S-phrases(s)

S36 Wear suitable protective clothing.

**Other hazards - none****Section 3. COMPOSITION/INFORMATION ON INGREDIENTS****Substances**

Synonyms : Lithium cobaltite

Formula : CoLiO2

Molecular Weight : 97,87 g/mol

Component Concentration

**Lithium cobalt(III) oxide**

CAS-No. 12190-79-3 -  
EC-No. 235-362-0

**Section 4. FIRST AID MEASURES****Description of first aid measures****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion., May cause irritation of the:, nose, Throat., Rash, Vomiting, Diarrhoea, sensation of heat, Exposure can cause damage to the:, Kidney, Lungs, Thyroid

**Indication of any immediate medical attention and special treatment needed**

no data available

**Section 5. FIREFIGHTING MEASURES****Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture**

Lithium oxides, Cobalt/cobalt oxides

**Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**

no data available

**Section 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

**Section 7. HANDLING AND STORAGE****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage, including any incompatibilities**

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

**Specific end use(s)**

no data available

**Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Components with workplace control parameters****Exposure controls****Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment****Eye/face protection**

Face shield and safety glasses 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**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Section 9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

- a) Appearance      Form: solid
- Colour: blue
- b) Odour      no data available
- c) Odour Threshold      no data available
- d) pH      no data available
- e) Melting point/freezing      no data available
- point
- f) Initial boiling point and no data available
- boiling range
- g) Flash point      no data available
- h) Evaporation rate      no data available
- i) Flammability (solid, gas) no data available
- j) Upper/lower      no data available
- flammability or
- explosive limits
- k) Vapour pressure      no data available
- l) Vapour density      no data available
- m) Relative density      no data available
- n) Water solubility      no data available
- o) Partition coefficient: n- no data available
- octanol/water
- p) Auto-ignition      no data available
- temperature
- q) Decomposition      no data available
- temperature
- r) Viscosity      no data available
- s) Explosive properties      no data available
- t) Oxidizing properties      no data available

**Other safety information**

no data available

**Section 10. STABILITY AND REACTIVITY****Reactivity**

no data available

**Chemical stability**

no data available

**Possibility of hazardous reactions**

no data available

**Conditions to avoid**

Avoid moisture.

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**

Other decomposition products - no data available

**Section 11. TOXICOLOGICAL INFORMATION****Information on toxicological effects****Acute toxicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

May cause allergic skin reaction.

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

Possible human carcinogen

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Lithium cobalt(III) oxide)

**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**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure**

Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion., May cause irritation of the:, nose, Throat., Rash, Vomiting, Diarrhoea, sensation of heat, Exposure can cause damage to the:, Kidney, Lungs, Thyroid

**Additional Information**

RTECS: Not available

**Section 12. ECOLOGICAL INFORMATION****Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**Results of PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

**Section 13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**Section 14. TRANSPORT INFORMATION****UN number**

ADR/RID: - IMDG: - IATA: -

**UN proper shipping name**

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

**Transport hazard class(es)**

ADR/RID: - IMDG: - IATA: -

**Packaging group**

ADR/RID: - IMDG: - IATA: -

**Environmental hazards**

ADR/RID: no IMDG Marine Pollutant: no IATA: no

**Special precautions for user**

no data available

**SECTION 15 - REGULATORY INFORMATION**

N/A

**SECTION 16 - ADDITIONAL INFORMATION**

N/A

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