

# Lanthanum Nickel Cobalt Oxide

Safety Data Sheet

Revision Date: 10/01/2015

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Version: 1.0

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Substance

**Product Name:** Lanthanum Nickel Cobalt Oxide

**CAS No:** 66402-68-4

**Synonyms:** Lanthanum Nickel Cobaltite; LNCO; LNC

### 1.2. Intended Use of the Product

Laboratory chemicals and manufacture of substances

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Company

Stanford Advanced Materials

Address : 23661 Birtcher Dr.,

Lake Forest, CA 92630 U.S.A.

Tel: (949) 407-8904

Fax: (949) 812-6690

www.samaterials.com

sales@samaterials.com

### 1.4. Emergency Telephone Number

**Emergency Number** : (949) 407-8904

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### Classification (GHS-US)

Resp. Sens. 1 H334

Skin Sens. 1 H317

Carc. 1A H350

STOT RE 1 H372

Aquatic Acute 2 H401

Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

### 2.2. Label Elements

#### GHS-US Labeling

#### Hazard Pictograms (GHS-US)



GHS08



GHS09



GHS07

#### Signal Word (GHS-US)

#### Hazard Statements (GHS-US)

- : Danger
- : H317 - May cause an allergic skin reaction.  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H350 - May cause cancer (Inhalation).  
H372 - Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).  
H401 - Toxic to aquatic life.  
H411 - Toxic to aquatic life with long lasting effects.
- Precautionary Statements (GHS-US)** : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust.  
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.

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P272 - Contaminated work clothing must not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear eye protection, protective clothing, protective gloves.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P342+P311 - If experiencing respiratory symptoms: Call a poison center or doctor.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P391 - Collect spillage.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local, regional, provincial, territorial, national, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

**2.4. Unknown Acute Toxicity (GHS-US)** No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable

### 3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Ceramic materials and wares, chemicals	(CAS No) 66402-68-4	100	Not classified
Contains	Product Identifier	% (w/w)	Classification (GHS-US)
Lanthanum Oxide (La <sub>2</sub> O <sub>3</sub> )	(CAS No) 1312-81-8	65 - 69	Not classified
Cobalt Oxide (Co <sub>3</sub> O <sub>4</sub> )	(CAS No) 1308-06-1	12 - 23	Resp. Sens. 1, H334 Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Nickel Oxide (NiO)	(CAS No) 1313-99-1	12 - 19	Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 1A, H350 STOT RE 1, H372 Aquatic Chronic 4, H413

A range of concentration as prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). If exposed or concerned: Call a POISON CENTER or doctor..

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. If exposed or concerned: Get medical advice/attention.

**Skin Contact:** Immediately flush skin with plenty of water for at least 60 minutes. Remove/Take off immediately all contaminated clothing. Seek medical attention for thermal burns. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain medical attention if irritation persists.

**Ingestion:** Rinse mouth. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

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### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** May cause sensitization by inhalation and by skin contact.

**Inhalation:** Repeated or prolonged inhalation may damage lungs. May cause cancer by inhalation. May cause an allergic reaction in sensitive individuals.

**Skin Contact:** May cause an allergic reaction in sensitive individuals. Prolonged or repeated contact with the skin may cause dermatitis.

**Eye Contact:** Eye contact with large amounts of dust may cause mechanical irritation.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use water jet. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Product is not flammable.

**Explosion Hazard:** Product itself is not explosive but if dust is generated, dust clouds suspended in air can be explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

**Firefighting Instructions:** Avoid dust clouds in combination with static electricity. Avoid inhalation of material or combustion by-products. Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Oxides of cobalt. Oxides of nickel. Oxides of lanthanum.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water sources.

### Reference to Other Sections

Refer to section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid all contact with skin, eyes, or clothing. Avoid breathing dust. Avoid generating dust. Remove ignition sources. Use special care to avoid static electric charges.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Stop leak if safe to do so. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Contact competent authorities after a spill.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Contain and collect as any solid. Do not take up in combustible material such as: saw dust or cellulosic material.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Collect spillage. Utilize a dust suppressant when removing mechanically.

### 6.4. Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

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### SECTION 7: HANDLING AND STORAGE

#### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

**Precautions for Safe Handling:** Do not breathe dust.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash hands and forearms thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Ground/bond container and receiving equipment. Good housekeeping is needed during storage, transfer, handling, and use of this material to avoid excessive dust accumulation.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Hygroscopic. Store in glovebox, dry box, or desiccator located in exhausted environment. Protect from moisture.

**Incompatible Materials:** Strong acids. Hydrogen perOxide. Iodine (I). Fluorine.

#### 7.3. Specific End Use(s)

Laboratory chemicals and manufacture of substances

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Nickel Oxide (NiO) (1313-99-1)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (soluble Ni compounds) 0.2 (insoluble Ni compounds)
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (as Ni)

#### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Proper grounding procedures to avoid static electricity should be followed. Ensure all national/local regulations are observed. Provide adequate ventilation to minimize dust concentrations. Use explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Personal Protective Equipment:** Protective clothing. Protective goggles. Gloves. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Suitable materials with adequate protection.

**Hand Protection:** Impermeable protective gloves.

**Eye Protection:** Chemical safety goggles.

**Skin and Body Protection:** In case of dust production: dustproof clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Other Information:** When using, do not eat, drink or smoke.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Black/gray
Odor	: Not available
Odor Threshold	: Not available
pH	: Unknown

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Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Unknown
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Static discharge could act as an ignition source.

### SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. Chemical Stability:** Stable under normal ambient conditions.
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Sparks. Heat. Overheating. Open flame.
- 10.5. Incompatible Materials:** Strong acids. Hydrogen perOxide. Iodine (I). Fluorine.
- 10.6. Hazardous Decomposition Products:** Oxides of cobalt, nickel, lanthanum.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Not classified

**pH:** Unknown

**Serious Eye Damage/Irritation:** Not classified

**pH:** Unknown

**Respiratory or Skin Sensitization:** May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not classified

**Carcinogenicity:** May cause cancer (Inhalation).

**Specific Target Organ Toxicity (Repeated Exposure):** Causes damage to organs through prolonged or repeated exposure.

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Repeated or prolonged inhalation may damage lungs. May cause cancer by inhalation. May cause an allergic reaction in sensitive individuals.

**Symptoms/Injuries After Skin Contact:** May cause an allergic reaction in sensitive individuals. Prolonged or repeated contact with the skin may cause dermatitis.

**Symptoms/Injuries After Eye Contact:** Eye contact with large amounts of dust may cause mechanical irritation.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

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### 11.2. Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

<b>Cobalt Oxide (Co<sub>3</sub>O<sub>4</sub>) (1308-06-1)</b>	
LD50 Oral Rat	> 5 g/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 4.83 mg/l/4h
<b>Nickel Oxide (NiO) (1313-99-1)</b>	
LD50 Oral Rat	> 5000 mg/kg
<b>Nickel Oxide (NiO) (1313-99-1)</b>	
IARC Group	1
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecology - General: Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

<b>Cobalt Oxide (Co<sub>3</sub>O<sub>4</sub>) (1308-06-1)</b>	
LC50 Fish 1	> 136 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	> 136 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Nickel Oxide (NiO) (1313-99-1)</b>	
LC50 Fish 1	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)

### 12.2. Persistence and Degradability

<b>Lanthanum Nickel Cobalt Oxide (66402-68-4)</b>	
Persistence and Degradability	Not established.

### 12.3. Bioaccumulative Potential

<b>Lanthanum Nickel Cobalt Oxide (66402-68-4)</b>	
Bioaccumulative Potential	Not established.
<b>Cobalt Oxide (Co<sub>3</sub>O<sub>4</sub>) (1308-06-1)</b>	
BCF Fish 1	(no bioaccumulation)

12.4. Mobility in Soil Not available

### 12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

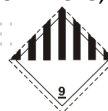
### 13.1. Waste treatment methods

**Sewage Disposal Recommendations:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.  
**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

## SECTION 14: TRANSPORT INFORMATION

### 14.1. In Accordance with DOT

Proper Shipping Name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.(Nickel and Cobalt Oxides)
Hazard Class	: 9
Identification Number	: UN3077
Label Codes	: 9
Packing Group	: III
Marine Pollutant	: Marine pollutant
ERG Number	: 171



### 14.2. In Accordance with IMDG

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Nickel and Cobalt Oxides)

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**Hazard Class** : 9  
**Identification Number** : UN3077  
**Packing Group** : III  
**Label Codes** : 9  
**EmS-No. (Fire)** : F-A  
**EmS-No. (Spillage)** : S-F  
**Marine pollutant** : Marine pollutant



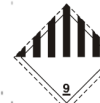
### 14.3. In Accordance with IATA

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nickel and Cobalt Oxides)  
**Packing Group** : III  
**Identification Number** : UN3077  
**Hazard Class** : 9  
**Label Codes** : 9  
**ERG Code (IATA)** : 9L



### 14.4. In Accordance with TDG

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nickel and Cobalt Oxides)  
**Packing Group** : III  
**Hazard Class** : 9  
**Identification Number** : UN3077  
**Label Codes** : 9  
**Marine pollutant** : Marine pollutant



## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

<b>Lanthanum Nickel Cobalt Oxide (66402-68-4)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard Delayed (chronic) health hazard
<b>Ceramic materials and wares, chemicals (66402-68-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard
<b>Lanthanum Oxide (La<sub>2</sub>O<sub>3</sub>) (1312-81-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Cobalt Oxide (Co<sub>3</sub>O<sub>4</sub>) (1308-06-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Nickel Oxide (NiO) (1313-99-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

### 15.2. US State Regulations

<b>Nickel Oxide (NiO) (1313-99-1)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>Ceramic materials and wares, chemicals (66402-68-4)</b>	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
<b>Lanthanum Oxide (La<sub>2</sub>O<sub>3</sub>) (1312-81-8)</b>	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
<b>Cobalt Oxide (Co<sub>3</sub>O<sub>4</sub>) (1308-06-1)</b>	
U.S. - Illinois - Toxic Air Contaminant Carcinogens	
U.S. - Illinois - Toxic Air Contaminants	

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### Nickel Oxide (NiO) (1313-99-1)

U.S. - California - SCAQMD - Toxic Air Contaminants - Carcinogens  
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute  
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic  
U.S. - California - SDAPCD - Toxic Air Contaminants - Carcinogenic Impacts Must Be Calculated  
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)  
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)  
U.S. - Maine - Chemicals of High Concern  
U.S. - Massachusetts - Allowable Ambient Limits (AALs)  
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)  
RTK - U.S. - Massachusetts - Right To Know List  
U.S. - Massachusetts - Threshold Effects Exposure Limits (TEELs)  
U.S. - Minnesota - Chemicals of High Concern  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual  
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New Jersey - Special Health Hazards Substances List  
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups  
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances  
RTK - U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations  
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories  
U.S. - Texas - Effects Screening Levels - Long Term  
U.S. - Texas - Effects Screening Levels - Short Term

### 15.3. Canadian Regulations

#### Lanthanum Nickel Cobalt Oxide (66402-68-4)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
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#### Ceramic materials and wares, chemicals (66402-68-4)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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#### Lanthanum Oxide (La<sub>2</sub>O<sub>3</sub>) (1312-81-8)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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#### Cobalt Oxide (Co<sub>3</sub>O<sub>4</sub>) (1308-06-1)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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#### Nickel Oxide (NiO) (1313-99-1)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 0.1 %

WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.



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### SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 10/01/2015  
**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### GHS Full Text Phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Carc. 1A	Carcinogenicity Category 1A
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Sens. 1	Skin sensitization Category 1
Skin Sens. 1B	Skin sensitization Category 1B
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*