

# Lanthanum Strontium Cobalt Iron Oxide

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 12/08/2014

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Version: 1.0

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

#### 1.1. Product identifier

Product form : Substance  
Substance name : Lanthanum Strontium Cobalt Iron Oxide  
CAS No : 66402-68-4  
Other means of identification : Ceramic Materials and Wares  
LSCF  
Lanthanum strontium cobalt ferrite  
Lanthanum strontium cobaltite ferrite

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

Use of the substance/mixture : Laboratory chemicals; Manufacture of substances.

#### 1.3. Details of the supplier of the safety data sheet

Fuel Cell Store  
1902 Pinon Drive, Unit B  
College Station, Texas, USA 77845  
T 979 703-1925  
www.fuelcellstore.com

#### 1.4. Emergency telephone number

Emergency number : Infotrac US & Canada: 1-800-535-5053 Global: 1-352-323-3500

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Resp. Sens. 1 H334

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling



Hazard pictograms (GHS-US) :

GHS08

Signal word (GHS-US) :

Danger.

Hazard statements (GHS-US) :

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust  
P284 - [In case of inadequate ventilation] wear respiratory protection  
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P342 + P311 - If experiencing respiratory symptoms: Call a poison center/doctor.  
P501 - Dispose of in accordance with relevant local regulations

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

No additional information

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Substance type : UVCB

Name	Product identifier	%
Lanthanum Strontium Cobalt Iron Oxide	(CAS No) 66402-68-4	100

Full text of H-phrases: see section 16

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- 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).
- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

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

- Symptoms/injuries after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Symptoms/injuries after eye contact : Symptoms may include pain, blinking, tears and redness.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

#### 5.2. Special hazards arising from the substance or mixture

- Reactivity : No dangerous reactions known.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Wear a self contained breathing apparatus. EN469.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Chemical goggles or safety glasses. Avoid breathing dust.
- Emergency procedures : Ventilate area.

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### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in a well-ventilated area.

Hygiene measures : Wash hands thoroughly after handling.

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

Storage conditions : Keep only in the original container in a cool well ventilated place.

### 7.3. Specific end use(s)

Laboratory chemicals; manufacture of substances.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Lanthanum Strontium Cobalt Iron Oxide (66402-68-4)	
ACGIH	Not applicable
OSHA	Not applicable

### 8.2. Exposure controls

Appropriate engineering controls : Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Dust impervious gloves.

Eye protection : Chemical goggles or safety glasses. In case of dust production: protective goggles.

Respiratory protection : Where excessive dust may result, use approved respiratory protection equipment. Use air-purifying respirator equipped with particulate filtering cartridges. Filtering Half-face mask

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	: Powder
Color	: Black – gray
Odor	: Odorless
Odor threshold	: No data available
pH	: Not applicable
Relative evaporation rate (butyl acetate=1)	: Not applicable
Melting point	: No data available
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: Not applicable
Self ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable

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Vapor pressure	: Not applicable
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive
Oxidizing properties	: No oxidizing properties.
Explosive limits	: No data available

### 9.2. Other information

VOC content : 0 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

### Potential Adverse human health effects and symptoms:

Symptoms/injuries after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/injuries after eye contact	: Symptoms may include pain, blinking, tears and redness.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

##### Lanthanum Strontium Cobalt Iron Oxide (66402-68-4)

Persistence and degradability	Not established
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#### 12.3. Bioaccumulative potential

##### Lanthanum Strontium Cobalt Iron Oxide (66402-68-4)

Bioaccumulative potential	Not established
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#### 12.4. Mobility in soil

No additional information available.

#### 12.5. Other adverse effects

Effect on ozone layer :

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

In accordance with DOT

Not considered a dangerous good for transport regulations

#### Additional information

Other information : No supplementary information available.

#### ADR

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Lanthanum Strontium Cobalt Iron Oxide (66402-68-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

##### CANADA

##### Lanthanum Strontium Cobalt Iron Oxide (66402-68-4)

WHMIS Classification

Class D Division 2 Subdivision B – Toxic material causing other toxic effects.  
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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### EU-Regulations

No additional information available

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Resp. Sens. 1 H334

Full text of H-phrases: see section 16

### 15.3. US State regulations

No additional information

## SECTION 16: Other information

Indication of changes : Original Document.

Data sources : Chemical Inspection & Regulation Service; accessed at: [http://www.cirs-reach.com/Inventory/Global\\_Chemical\\_Inventories.html](http://www.cirs-reach.com/Inventory/Global_Chemical_Inventories.html).  
Component Supplier SDSs.  
ESIS (European chemical Substances Information System; accessed at: <http://esis.jrc.ec.europa.eu/index.php?PGM=cla>.  
European Chemicals Agency (ECHA) Registered Substances list.  
Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association.  
Fire Protection Guide to Hazardous Materials; 10th edition.  
The Organisation for Economic Co-operation and Development (OECD; eChemPortal chemical searches. Accessed at <http://www.echemportal.org/echemportal/substancesearch/substancesearchlink.action>.  
TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Abbreviations and acronyms : CAS (Chemical Abstracts Service) number.  
GHS: Globally Harmonized System (of Classification and Labeling) of Chemicals .  
OSHA: Occupational Safety & Health Administration.  
TSCA: Toxic Substances Control Act.

Other information : None.

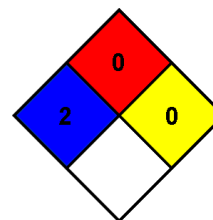
Full text of H-phrases:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
H319	Causes serious eye irritation

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)

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*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.*