

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
 Product name : Steel Mill Electric Arc Furnace Dust  
 Product group : Trade product

#### 1.2. Recommended use and restrictions on use

Recommended use : Industrial use  
 Restrictions on use : None known

#### 1.3. Supplier

Gerdau Long Steel North America  
 4221 West Boy Scout Blvd.  
 Suite 600  
 33607 Tampa  
 T (800) 876-3626

#### 1.4. Emergency telephone number

Emergency number : 800-424-9300 CHEMTREC

### SECTION 2: Hazard identification

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

##### Classification (GHS-CA)

Acute toxicity (oral), Category 3 H301  
 Acute toxicity (dermal), Category 3 H311  
 Acute toxicity (inhalation:gas), Category 3 H331  
 Skin corrosion/irritation, Category 1A H314  
 Serious eye damage/eye irritation, Category 1 H318  
 Respiratory sensitisation, Category 1 H334  
 Skin sensitisation, Category 1 H317  
 Germ cell mutagenicity, Category 2 H341  
 Carcinogenicity, Category 1 H350  
 Reproductive toxicity, Category 1 H360  
 Specific target organ toxicity — Repeated exposure, Category 1 H372

Full text of H statements : see section 16

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

##### GHS-CA labelling

Hazard pictograms (GHS-CA) :



Signal word (GHS-CA) :

Danger

Hazard statements (GHS-CA) :

May form combustible dust concentrations in air  
 H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled  
 H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.

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Precautionary statements (GHS-CA)	<p>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.            H341 - Suspected of causing genetic defects.            H350 - May cause cancer.            H360 - May damage fertility or the unborn child.            H372 - Causes damage to organs through prolonged or repeated exposure.</p> <p>: P201 - Obtain special instructions before use.            P202 - Do not handle until all safety precautions have been read and understood.            P260 - Do not breathe dust, fume, vapours.            P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.            P264 - Wash hands thoroughly after handling.            P270 - Do not eat, drink or smoke when using this product.            P271 - Use only outdoors or in a well-ventilated area.            P272 - Contaminated work clothing should not be allowed out of the workplace.            P280 - Wear eye protection, face protection, protective clothing, protective gloves.            P284 - [In case of inadequate ventilation] wear respiratory protection.            P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER.            P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting            P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .            P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.            P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.            P310 - Immediately call a POISON CENTER.            P321 - Specific treatment (see supplemental first aid instruction on this label)            P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.            P342+P311 - If experiencing respiratory symptoms: Call a doctor.            P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.            P403+P233 - Store in a well-ventilated place. Keep container tightly closed.            P405 - Store locked up.            P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation</p>
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### 2.3. Other hazards

Other hazards not contributing to the classification : Inhalation of fumes may cause metal fume fever.

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

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS-CA)
Calcium oxide	Calcium oxide (quicklime) Lime / Quicklime / CALCIUM OXIDE / Quicklime (CaO) / Calcium oxide (CaO)	(CAS-No.) 1305-78-8	0 - 35	Skin Corr. 1A, H314 Eye Dam. 1, H318
Silica, cristobalite	Cristobalite / Cristobalite (SiO <sub>2</sub> ) / Silica, crystalline - cristobalite / Silica, crystalline, cristobalite / Silica-crystalline, cristobalite / Cristobalite (Silica) / Silica, crystalline cristobalite / Silica - crystalline, cristobalite / Silica crystalline, cristobalite / Silica-crystalline cristobalite / Silica, crystalline-cristobalite / Silica (crystalline, cristobalite) / Silica crystalline / Silica crystalline cristobalite / Silica, crystalline / Crystalline SiO <sub>2</sub> , cristobalite / Crystalline silica in the form of cristobalite / Silica	(CAS-No.) 14464-46-1	0 - 15	Carc. 1A, H350 STOT RE 1, H372
Tin	Tin metal / Tin, elemental / Tin, metal	(CAS-No.) 7440-31-5	0 - 5	Acute Tox. 4 (Oral), H302
Phosphorus oxide (P <sub>2</sub> O <sub>5</sub> )	Phosphorus pentoxide / Diphosphorus pentoxide / Diphosphorus pentoxide / Phosphoric anhydride / Phosphorus pentoxide / Phosphorus(V) oxide / Phosphoric acid anhydride / Phosphoric pentoxide / Phosphorous pentoxide	(CAS-No.) 1314-56-3	0 - 5	Skin Corr. 1A, H314
Sulfur dioxide	Sulphur dioxide / Sulphurous anhydride / Sulfur(IV) oxide / Sulfur dioxide, anhydrous / Sulfur oxide (SO <sub>2</sub> )	(CAS-No.) 7446-09-5	0 - 5	Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1B, H314

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS-CA)
Nickel	Nickel metal / Nickel, elemental / Nickel, metallic / Nickel, metal / C.I. 77775	(CAS-No.) 7440-02-0	0 - 5	Skin Sens. 1, H317 Carc. 1B, H350 STOT RE 1, H372
Lead	C.I. Pigment Metal 4 / Lead metal / Lead, elemental / Lead (elemental) / Lead (metal) / C.I. 77575 / Lead massive	(CAS-No.) 7439-92-1	0 - 5	Carc. 2, H351 Repr. 1, H360 STOT RE 1, H372
Fluorine	Fluorine, compressed / Fluoride	(CAS-No.) 7782-41-4	0 - 5	Ox. Gas 1, H270 Acute Tox. 1 (Inhalation:gas), H330 Skin Corr. 1A, H314
Vanadium oxide (V2O5)	Vanadium pentoxide / Divanadium pentoxide / Divanadium pentaoxide / Vanadium pentaoxide / Vanadium(V) oxide / C.I. 77938	(CAS-No.) 1314-62-1	0 - 5	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 4 (Inhalation:dust,mist), H332 Muta. 2, H341 STOT SE 3, H335 STOT RE 1, H372 Aquatic Chronic 2, H411
Arsenic	Arsenic, elemental / Arsenic metal / Arsenic (elemental) / Arsenic inorganic oxides / Arsenic, inorganic / Inorganic arsenic	(CAS-No.) 7440-38-2	0 - 5	Acute Tox. 2 (Oral), H300 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Cobalt	Cobalt metal / Cobalt, elemental / C.I. 77320 / Cobalt metallic	(CAS-No.) 7440-48-4	0 - 5	Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Chronic 4, H413
Potassium hydroxide	Potassium hydroxide (caustic potash) Caustic potash / Potassium hydroxide (K(OH)) / POTASSIUM HYDROXIDE	(CAS-No.) 1310-58-3	0 - 5	Acute Tox. 3 (Oral), H301 Skin Corr. 1A, H314 Eye Dam. 1, H318
Barium	Barium metal / Barium, metal / Barium salts	(CAS-No.) 7440-39-3	0 - 5	Acute Tox. 3 (Oral), H301
Cadmium oxide (CdO)	Cadmium monoxide / Cadmium oxide / Cadmium oxide (non-pyrophoric)	(CAS-No.) 1306-19-0	0 - 5	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Inhalation:dust,mist), H330 Muta. 2, H341 Carc. 1B, H350 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Mercury	Mercury, elemental / Mercury metal / Elemental mercury / Metallic mercury	(CAS-No.) 7439-97-6	0 - 5	Acute Tox. 2 (Inhalation:dust,mist), H330 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Selenium	Elemental selenium / Selenium, elemental / Selenium and Compounds	(CAS-No.) 7782-49-2	0 - 5	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Inhalation:dust,mist), H331 STOT RE 2, H373 Aquatic Chronic 4, H413

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: Immediately call a POISON CENTER/doctor. Take off immediately all contaminated clothing. Wash immediately with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Immediately call a POISON CENTER/doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
First-aid measures general	: Never give anything by mouth to an unconscious person. Call a physician immediately.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. Burns.
Chronic symptoms	: May cause cancer. May cause hereditary genetic damage.
Potential adverse human health effects and symptoms	: Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

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### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Not applicable.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Carbon dioxide. Sand. Water spray. Dry powder. Foam.

### 5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.3. Specific hazards arising from the hazardous product

No additional information available

### 5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

No additional information available

### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. Notify authorities if product enters sewers or public waters. In case of large spillages: Shovel or sweep up and put in a closed container for disposal. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/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. Provide good ventilation in process area to prevent formation of vapour. Do not breathe dust, fume. Avoid contact during pregnancy/while nursing. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Do not handle until all safety precautions have been read and understood. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Obtain special instructions before use.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

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

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in original container. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Calcium oxide (1305-78-8)		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

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<b>Silica, cristobalite (14464-46-1)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (respirable dust)
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable particulate)
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable)
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (designated substances regulation-respirable)
<b>Tin (7440-31-5)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>Sulfur dioxide (7446-09-5)</b>		
Canada (Quebec)	VECD (mg/m <sup>3</sup> )	13 mg/m <sup>3</sup>
Canada (Quebec)	VECD (ppm)	5 ppm
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
Canada (Quebec)	VEMP (ppm)	2 ppm
Alberta	OEL STEL (mg/m <sup>3</sup> )	13 mg/m <sup>3</sup>
Alberta	OEL STEL (ppm)	5 ppm
Alberta	OEL TWA (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	2 ppm
British Columbia	OEL STEL (ppm)	5 ppm
British Columbia	OEL TWA (ppm)	2 ppm
Ontario	OEL STEL (mg/m <sup>3</sup> )	10.4 mg/m <sup>3</sup>
Ontario	OEL STEL (ppm)	5 ppm
Ontario	OEL TWA (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
Ontario	OEL TWA (ppm)	2 ppm
<b>Fluorine (7782-41-4)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Canada (Quebec)	VEMP (ppm)	0.1 ppm
Alberta	OEL STEL (mg/m <sup>3</sup> )	3.1 mg/m <sup>3</sup>
Alberta	OEL STEL (ppm)	2 ppm
Alberta	OEL TWA (mg/m <sup>3</sup> )	1.6 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	1 ppm
British Columbia	OEL TWA (ppm)	0.1 ppm
Ontario	OEL STEL (ppm)	2 ppm
Ontario	OEL TWA (ppm)	1 ppm
<b>Vanadium oxide (V2O5) (1314-62-1)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (fume and respirable dust)
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (fume or respirable particulate)
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (inhalable)
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (inhalable)
<b>Arsenic (7440-38-2)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.01 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.01 mg/m <sup>3</sup>
Ontario	OEL STEL (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (designated substances regulation)
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.01 mg/m <sup>3</sup> (designated substances regulation)
<b>Cobalt (7440-48-4)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup>

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<b>Potassium hydroxide (1310-58-3)</b>		
Canada (Quebec)	PLAFOND (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Alberta	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
British Columbia	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Ontario	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>Barium (7440-39-3)</b>		
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
<b>Lead (7439-92-1)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (designated substances regulation)
<b>Mercury (7439-97-6)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (vapour)
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (elemental)
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (designated substances regulation)
<b>Nickel (7440-02-0)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (inhalable)
<b>Selenium (7782-49-2)</b>		
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Avoid dust formation. Ensure good ventilation of the work station.  
 Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Chemically resistant protective gloves

#### Eye protection:

Chemical goggles or face shield

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

Physical state : Solid  
 Appearance : Powder. granular.  
 Colour : brown

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Odour	: odourless
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: >= 2800 °F
Freezing point	: Not applicable
Boiling point	: >=
Flash point	: 5000 °F
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative density	: Not applicable
Solubility	: Water: Insoluble
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Explosive limits	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: Corrosive vapours.
Chemical stability	: Not established.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Extremely high or low temperatures.
Incompatible materials	: Strong acids. Strong bases.
Hazardous decomposition products	: Thermal decomposition generates : Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Toxic if swallowed.
Acute toxicity (dermal)	: Dermal: Toxic in contact with skin.
Acute toxicity (inhalation)	: Inhalation:gas: Toxic if inhaled.

ATE CA (oral)	98.119 mg/kg bodyweight
ATE CA (dermal)	1000 mg/kg bodyweight
ATE CA (gases)	1722.533 ppmv/4h

<b>Calcium oxide (1305-78-8)</b>	
LD50 oral rat	> 2000 mg/kg

<b>Tin (7440-31-5)</b>	
LD50 oral rat	700 mg/kg

<b>Phosphorus oxide (P2O5) (1314-56-3)</b>	
LC50 inhalation rat (mg/l)	1217 mg/m <sup>3</sup> (Exposure time: 1 h)

<b>Sulfur dioxide (7446-09-5)</b>	
LC50 inhalation rat (ppm)	2500 ppm/1h

<b>Fluorine (7782-41-4)</b>	
LC50 inhalation rat (ppm)	185 ppm/1h

<b>Vanadium oxide (V2O5) (1314-62-1)</b>	
LD50 oral rat	10 mg/kg
LD50 dermal rabbit	50 mg/kg
LC50 inhalation rat (mg/l)	4.29 mg/l/4h

<b>Arsenic (7440-38-2)</b>	
LD50 oral rat	15 mg/kg

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<b>Cobalt (7440-48-4)</b>	
LD50 oral rat	6171 mg/kg
LC50 inhalation rat (mg/l)	> 10 mg/l (Exposure time: 1 h)
<b>Potassium hydroxide (1310-58-3)</b>	
LD50 oral rat	284 mg/kg
<b>Barium (7440-39-3)</b>	
LD50 oral rat	132 mg/kg
<b>Cadmium oxide (CdO) (1306-19-0)</b>	
LD50 oral rat	72 mg/kg
<b>Nickel (7440-02-0)</b>	
LD50 oral rat	> 9000 mg/kg
<b>Selenium (7782-49-2)</b>	
LD50 oral rat	6700 mg/kg

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: May cause cancer.
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.
Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. Burns.
Chronic symptoms	: May cause cancer. May cause hereditary genetic damage.
Other information	: Exposure to dust or fumes from some metal including iron, zinc, manganese, chromium, cobalt, and copper can produce a condition known as metal fume fever.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: Before neutralisation, the product may represent a danger to aquatic organisms.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

<b>Calcium oxide (1305-78-8)</b>	
LC50 fish 1	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
BCF fish 1	(no bioaccumulation)

<b>Sulfur dioxide (7446-09-5)</b>	
BCF fish 1	(no bioaccumulation expected)

<b>Cobalt (7440-48-4)</b>	
LC50 fish 1	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
BCF fish 1	(no bioaccumulation)

<b>Potassium hydroxide (1310-58-3)</b>	
Log Pow	0.65

<b>Lead (7439-92-1)</b>	
LC50 fish 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])



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<b>Lead (7439-92-1)</b>	
LC50 fish 2	1.17 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 1	600 µg/l (Exposure time: 48 h - Species: water flea)

<b>Mercury (7439-97-6)</b>	
LC50 fish 1	0.5 mg/l (Exposure time: 96 h - Species: Cyprinus carpio)
LC50 fish 2	0.16 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])

<b>Nickel (7440-02-0)</b>	
LC50 fish 1	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
LC50 fish 2	1.3 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 72h algae (1)	0.18 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h algae (1)	0.174 - 0.311 mg/l (Species: Pseudokirchneriella subcapitata [static])

### 12.2. Persistence and degradability

<b>Steel Mill Electric Arc Furnace Dust</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Steel Mill Electric Arc Furnace Dust</b>	
Bioaccumulative potential	Not established.

<b>Calcium oxide (1305-78-8)</b>	
BCF fish 1	(no bioaccumulation)

<b>Sulfur dioxide (7446-09-5)</b>	
BCF fish 1	(no bioaccumulation expected)

<b>Cobalt (7440-48-4)</b>	
BCF fish 1	(no bioaccumulation)

<b>Potassium hydroxide (1310-58-3)</b>	
Log Pow	0.65

### 12.4. Mobility in soil

<b>Steel Mill Electric Arc Furnace Dust</b>	
Ecology - soil	Not established.

<b>Potassium hydroxide (1310-58-3)</b>	
Log Pow	0.65

### 12.5. Other adverse effects

Ozone	: Not classified
Other information	: Avoid release to the environment.
Effect on the global warming	: Not established.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.

## SECTION 14: Transport information

### 14.1. Basic shipping description

In accordance with TDG

#### Transportation of Dangerous Goods

UN-No. (TDG)	: UN1759
Packing group	: II - Medium Danger

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TDG Primary Hazard Classes : 8 - Class 8 - Corrosives  
Transport document description : UN1759 CORROSIVE SOLID, N.O.S. (Calcium Oxide), 8, II  
Proper Shipping Name (Transportation of Dangerous Goods) : CORROSIVE SOLID, N.O.S.  
Calcium Oxide

Hazard labels (TDG) : 8 - Corrosive substances



TDG Special Provisions : 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a)UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S.; (b)UN1851, MEDICINE, LIQUID, TOXIC, N.O.S.; (c)UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S.; (d)UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S.; or (e)UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the "Food and Drugs Act". (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a)UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b)UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS. SOR/2014-306

Explosive Limit and Limited Quantity Index : 1 kg

Excepted quantities (TDG) : E2

Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 15 kg

### 14.2. Transport information/DOT

No additional information available

### 14.3. Air and sea transport

#### IMDG

UN-No. (IMDG) : 1759  
Proper Shipping Name (IMDG) : CORROSIVE SOLID, N.O.S.  
Transport document description (IMDG) : UN 1759 CORROSIVE SOLID, N.O.S. (Calcium Oxide), 8, III  
Class (IMDG) : 8 - Corrosive substances  
Packing group (IMDG) : III - substances presenting low danger

#### IATA

UN-No. (IATA) : 1759  
Proper Shipping Name (IATA) : Corrosive solid, n.o.s.  
Transport document description (IATA) : UN 1759 Corrosive solid, n.o.s. (Calcium Oxide), 8, II  
Class (IATA) : 8 - Corrosives  
Packing group (IATA) : II - Medium Danger

## SECTION 15: Regulatory information

### 15.1. National regulations

#### Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)

Listed on the Canadian DSL (Domestic Substances List)

#### Calcium oxide (1305-78-8)

Listed on the Canadian DSL (Domestic Substances List)

#### Zinc oxide (ZnO) (1314-13-2)

Listed on the Canadian DSL (Domestic Substances List)

#### Silica, cristobalite (14464-46-1)

Listed on the Canadian DSL (Domestic Substances List)

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according to the Hazardous Products Regulation (February 11, 2015)

<b>Manganese (7439-96-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Magnesium oxide (MgO) (1309-48-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Tin (7440-31-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Chromium (7440-47-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Phosphorus oxide (P<sub>2</sub>O<sub>5</sub>) (1314-56-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Sulfur dioxide (7446-09-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Calcium fluoride (CaF<sub>2</sub>) (7789-75-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Fluorine (7782-41-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Molybdenum (7439-98-7)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Silver (7440-22-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Vanadium oxide (V<sub>2</sub>O<sub>5</sub>) (1314-62-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Arsenic (7440-38-2)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Cobalt (7440-48-4)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Titanium dioxide (13463-67-7)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Potassium hydroxide (1310-58-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Barium (7440-39-3)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Cadmium oxide (CdO) (1306-19-0)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Lead (7439-92-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Tungsten (7440-33-7)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Mercury (7439-97-6)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Nickel (7440-02-0)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Selenium (7782-49-2)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Copper (7440-50-8)</b>
Listed on the Canadian DSL (Domestic Substances List)

### 15.2. International regulations

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according to the Hazardous Products Regulation (February 11, 2015)

### Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Calcium oxide (1305-78-8)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Zinc oxide (ZnO) (1314-13-2)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Silica, cristobalite (14464-46-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Manganese (7439-96-5)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Magnesium oxide (MgO) (1309-48-4)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

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### Tin (7440-31-5)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Chromium (7440-47-3)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Phosphorus oxide (P<sub>2</sub>O<sub>5</sub>) (1314-56-3)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Sulfur dioxide (7446-09-5)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Toxic Substance (CEPA – Schedule I)

Yes

### Calcium fluoride (CaF<sub>2</sub>) (7789-75-5)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

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### Fluorine (7782-41-4)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Molybdenum (7439-98-7)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Silver (7440-22-4)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Vanadium oxide (V2O5) (1314-62-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
 Listed on the Japanese ISHL (Industrial Safety and Health Law)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Poisonous and Deleterious Substances Control Law  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

Toxic Substance (CEPA – Schedule I)

Yes

### Arsenic (7440-38-2)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Poisonous and Deleterious Substances Control Law  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Cobalt (7440-48-4)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

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### Titanium dioxide (13463-67-7)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
 Listed on the Japanese ISHL (Industrial Safety and Health Law)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Potassium hydroxide (1310-58-3)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
 Listed on the Japanese ISHL (Industrial Safety and Health Law)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Poisonous and Deleterious Substances Control Law  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Barium (7440-39-3)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Cadmium oxide (CdO) (1306-19-0)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
 Listed on the Japanese ISHL (Industrial Safety and Health Law)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Poisonous and Deleterious Substances Control Law  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Lead (7439-92-1)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

Toxic Substance (CEPA – Schedule I)

Yes

### Tungsten (7440-33-7)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)

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according to the Hazardous Products Regulation (February 11, 2015)

### Mercury (7439-97-6)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Poisonous and Deleterious Substances Control Law  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)

Toxic Substance (CEPA – Schedule I)	Yes
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### Nickel (7440-02-0)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Selenium (7782-49-2)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Japanese Poisonous and Deleterious Substances Control Law  
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

### Copper (7440-50-8)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the United States TSCA (Toxic Substances Control Act) inventory  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)  
 Listed on Turkish inventory of chemical

## SECTION 16: Other information

Revision date : 01/02/2018

Other information : **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H-statements:

H270	May cause or intensify fire; oxidiser.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.



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according to the Hazardous Products Regulation (February 11, 2015)

H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very 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.

SDS Canada (GHS)

*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*