

## Zinc Metal (Ingot, Shot)

### 1. Identification

<b>Product identifier:</b>	Zinc metal (ingot, shot)
<b>Other means of identification:</b>	Not applicable
<b>Recommended use and restrictions on use:</b>	Steel galvanizing, Alloying, Batteries
<b>Initial supplier identifier:</b>	Noranda Income Limited Partnership 860 Boul. Gérard-Cadieux, Salaberry-de-Valleyfield, Québec, Canada, J6T 6L4 info.cezinc@glencore.ca
<b>Information:</b>	
<b>Emergency telephone number (hours of operation):</b>	1 (450) 373-9144 (Monday to Friday from 8:00 AM to 4:00 PM EDT)

### 2. Hazard Identification

<b>Classification of the product :</b>	The substance is not classified according to the WHMIS and the GHS
<b>GHS information element :</b>	Not applicable
<b>Precautionary statements</b>	Not applicable
<b>Other know hazards</b>	Not applicable

### 3. Composition/Information on ingredients

<b>Substance or mixture :</b>	Substance
<b>Chemical name</b>	Zinc
<b>Common name and synonyms</b>	Zn
<b>CAS number / Other identifiers</b>	7440-66-6

### 4. First-aid measures

<b>Description of necessary first aid measures</b>	
<b>Inhalation :</b>	Not applicable
<b>Ingestion :</b>	Not applicable
<b>Skin Contact</b>	Not applicable
<b>Eye Contact :</b>	Not applicable

**Most important symptoms and effects**

Symptoms of metal fume fever (in case of generation of fumes and inhalation of excessive quantities of zinc oxide)

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

No further relevant information available

### 5. Fire-fighting measures

**Suitable extinguishing media:**

Dry chemical, dry sand or special powder extinguishing media. Use extinguishing media adapted to the immediate environment.

**Unsuitable extinguishing media:**

Water may be ineffective for extinguishing a fire but should be used to keep fire exposed ingot and shot cool.

**Specific hazards arising from the hazardous product:**

Emits toxic fumes (zinc oxides) under fire conditions.

**Hazardous combustion products:**

Zinc oxides

**Special protective equipment and precautions for fire-fighters:**

Wear self-contained breathing apparatus (SCBA) and protective clothing

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel:**

Avoid inhalation of dust. Evacuate hazardous area and follow emergency procedures

**For emergency responders:**

Protective clothing, gloves, and safety glasses. When dust or fumes are involved wear an approved self-contained breathing apparatus.

**Environmental precautions:**

Do not let product enter drains.

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

Sweep up and place in a suitable container for proper disposal. Clean surfaces with soap and water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

### 7. Handling and storage

**Control parameter:**

Zinc ingots suspected of containing moisture should be thoroughly dried before being added to a molten bath.

**Advice on general hygiene:**

Do not eat, drink or smoke in areas where this product is handled or processed. Wash hands and face after use.

**Conditions for safe storage, and incompatibilities:**

Store in a dry, covered area away from incompatible materials. Avoid moisture.

### 8. Exposure controls / Personal protection

**Control parameter**

Not available

**Appropriate engineering controls :**

Wash hands after working with substance. Change contaminated clothing.

### Individual protection measures

#### Eyes

Safety glasses or goggles

#### Skin

Wear nitrile or rubber gloves, apron r lab coat and coveralls. Safety boots is recommended

#### Inhalation

In case of fume or dust generation respiratory protection needed, recommended filter type P3

#### Other

Do not eat, drink or smoke in work area. Wash hands before eating or drinking and after working with the product.



## 9. Physical and chemical properties

<b>Physical state:</b>	Solid (ingot, shot)
<b>Colour:</b>	Greyish
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	Not applicable
<b>pH:</b>	Not applicable
<b>Melting point:</b>	420°C (788°F)
<b>Freezing point:</b>	Not applicable
<b>Boiling point:</b>	908°C (1666.4°F)
<b>Flash point</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Flammability:</b>	Not flammable
<b>Upper and lower flammability or explosive limits:</b>	Not applicable
<b>Vapour pressure:</b>	Not applicable
<b>Vapour density:</b>	Not applicable
<b>Relative density:</b>	Not available
<b>Solubility:</b>	No (water, methanol, diethyl ether, n-octanol, acetone) Yes (acid, alkali)
<b>Partition coefficient -n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not applicable
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	Not applicable

## 10. Stability and reactivity

#### Reactivity :

Reacts with acid and strong alkalis to generate hydrogen gas

#### Chemical stability :

Stable under normal temperature and pressures

**Possibility of hazardous reactions**

Contact with acids and alkalis generate highly flammable hydrogen gas. Contact with acidic solutions of arsenic and antimony compounds may evolve highly toxic arsine or stibine gas

**Conditions to avoid**

Avoid overheating of molten bath. Avoid moisture and contact with incompatibles substances.

**Incompatibles materials**

Acids, strong alkalis, strong oxidizers such as chlorine, fluorine, bromine, sodium potassium or barium peroxide, sodium or potassium chlorate, chromium trioxide, tellurium, selenium, sulfur and fused ammonium nitrate

**Hazardous decomposition products:**

High temperature operations will generate zinc oxide fumes. Hydrogen gas evolution in contact with acid or strong alkalis

**11. Toxicological information**

**Likely routes of exposure**

**Inhalation**

If excessive quantities of zinc oxide fume are inhaled, it can result metal fume fever

**Ingestion**

Not harmful

**Skin contact**

Not irritating

**Eyes contact**

Not irritating

**Symptoms related to the physical, chemical and toxicological characteristics**

Symptoms of metal fume fever are immediate dryness and irritation of the throat, tightness of the chest and coughing, followed by flu-like symptoms of fever, malaise, perspiration, frontal headache, muscle cramps, low back pain, occasionally blurred vision, nausea, and vomiting. There are no recognized complications, after affects, or chronic affects that result from this condition

**Delayed and immediate effects, and chronic effects from short term and long term exposure**

Not available

**Numerical measures of toxicity**

Not available

**12. Ecological information**

**Ecotoxicity :**

Toxicité aquatique :

Toxicité terrestre :

Harmful to aquatic life

PNEC (fresh water) : 21 µg/L

PNEC (soil) : 27 mg/kg dry soil

Persistence indéfinie sous forme de cation

**Persistence and degradability**

Indefinite persistence in cation criteria

**Bioaccumulative potential**

Does not meet bioaccumulation criteria

**Mobility in soil**

Soluble compounds produced by acidic conditions. Become mobile in water and in soil.

**Other adverse effects**

Not available

### 13. Disposal considerations

**Disposal methods**

Recycle to process, if possible. Waste must be disposed of in accordance with the local regulations. Do not mixing with other waste. Handle uncleaned containers like the product itself.

### 14. Transport information

This product is not dangerous under current provisions of the Transportation of Dangerous Goods (TDG), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the safety data sheet contains all the information required by the Hazardous Product Regulations.

### 16. Other informations

**Glossary**

IATA	Globally Harmonized System of Classification and Labelling of Chemicals
IMDG	Hazardous Products Regulations
CESE	International Air Transport Association
RDP	International Maritime Dangerous Goods Code
SIMDUT	Predicted No Effect Concentration
SGH	Transportation of Dangerous Goods
TMD	Workplace Hazardous Materials Information System

**References :**

CCOHS	<a href="https://www.ccohs.ca/">https://www.ccohs.ca/</a>
CNESST	<a href="https://reptox.cnesst.gouv.qc.ca/Pages/repertoire-toxicologique.aspx">https://reptox.cnesst.gouv.qc.ca/Pages/repertoire-toxicologique.aspx</a>
GHS Rev. 9, 2021	<a href="https://unece.org/transport/standards/transport/dangerous-goods/ghs-rev9-2021">https://unece.org/transport/standards/transport/dangerous-goods/ghs-rev9-2021</a>
Gouvernement of Canada	<a href="https://www.canada.ca/en/services/health.html">https://www.canada.ca/en/services/health.html</a>
HPR	<a href="https://laws-lois.justice.gc.ca/eng/regulations/SOR-2015-17/">https://laws-lois.justice.gc.ca/eng/regulations/SOR-2015-17/</a>
TDGR	<a href="https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-286/">https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-286/</a>

**SDS information**

Version :	1
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The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.