

# Steelmaking Slag (Ladle Slag)

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)  
Issue date: 2021-03-17 Revision date: 2023-08-03 Version: 2.0



### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Substance  
Substance name : Steelmaking Slag (Ladle Slag)

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

Recommended use : Material reclaimed from the basic oxygen furnace. Used as fill.  
Restrictions on use : Product for industrial use only

#### 1.3. Supplier

##### Manufacturer

Algoma Steel  
105 West Street  
Sault Ste. Marie - Ontario, P6A 7B4  
Canada  
T (705) 945-2351

#### 1.4. Emergency telephone number

Emergency number : 1-888-CAN-UTEC (226-8832), 613-996-6666

### SECTION 2: Hazard identification

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

##### Classification (GHS CA)

Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1	H318	Causes serious eye damage.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.

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

##### GHS-CA labelling

Hazard pictograms (GHS-CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS-CA) : H315 - Causes skin irritation.  
H318 - Causes serious eye damage.  
H335 - May cause respiratory irritation.  
H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-CA) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P312 - Call a POISON CENTER or doctor if you feel unwell.  
P302+P352 - IF ON SKIN: Wash with plenty of water.

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P362+P364 - Take off contaminated clothing and wash it before reuse.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
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 or doctor.  
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.

### 2.3. Other hazards

No additional information available

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

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : Steelmaking Slag (Ladle Slag)

Name	Chemical name / Synonyms	Product identifier	%
Slags, steelmaking	-	CAS-No.: 65996-71-6	100

This product is a complex mixture of iron oxides, metallic silicates, amorphous silica, magnesium oxide, manganese oxide, calcium oxide and phosphorous pentoxide. Listed below is a partial listing of the components that comprise this product.

Name	Chemical name / Synonyms	Product identifier	%
Calcium oxide	Lime / Quicklime / CALCIUM OXIDE / Quicklime (CaO) / Calcium oxide (CaO) / Lime (calcium oxide)	CAS-No.: 1305-78-8	32 - 46
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	C.I. 77491 / C.I. Pigment Red 101 / Diiron trioxide / Ferric oxide / Iron sesquioxide / Iron(III) oxide / Red Iron Oxide / Rouge / CI 77491 / Iron trioxide / Sienna / Pigment Red 101 / Red iron oxide / Red iron oxide pigment / Iron Oxide Red / Diiron(III) trioxide / Iron oxide / Ferric oxide red / Iron oxide, red	CAS-No.: 1309-37-1	15 - 40
Magnesium oxide (MgO)	MAGNESIUM OXIDE / Magnesia / C.I. 77711 / Magnesium oxide / Calcined magnesite	CAS-No.: 1309-48-4	7.5 - 17.5
Manganese dioxide (MnO <sub>2</sub> )	Manganese(IV) oxide / Pyrolusite Brown / MANGANESE DIOXIDE / Manganese peroxide / C.I. 77728 / Manganese Black / C.I. Pigment Brown 8 / C.I. Pigment Black 14 / Manganese (IV) dioxide / Black manganese oxide / Manganese dioxide / Manganese dioxide (MnO <sub>2</sub> )	CAS-No.: 1313-13-9	2.5 - 5.5
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	Aluminum oxide / .alpha.-Alumina / Alumina / Aluminium oxide / Aluminium oxide (Al <sub>2</sub> O <sub>3</sub> ) / .alpha.-Aluminum oxide / Alundum / ALUMINA / Dialuminium trioxide / Dialuminum trioxide	CAS-No.: 1344-28-1	2 - 3
Phosphorus oxide (P <sub>2</sub> O <sub>5</sub> )	Phosphorus pentoxide / Diphosphorus pentaoxide / Diphosphorus pentoxide / Phosphoric anhydride / Phosphorus pentaoxide / Phosphorus(V) oxide / Phosphoric acid anhydride / Phosphoric pentoxide / Phosphorus pentoxide (P <sub>2</sub> O <sub>5</sub> ) / PHOSPHORUS PENTOXIDE	CAS-No.: 1314-56-3	0.6 - 1.1

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Comments : The concentrations listed represent actual ranges that result from batch variability.

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical advice/attention if you feel unwell.

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

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic symptoms : Causes damage to organs through prolonged or repeated exposure.

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

Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

### 5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Do not use water jet.

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

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Metal oxides. May generate irritating or corrosive vapours.

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

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

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### SECTION 6: Accidental release measures

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

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

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

For containment : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Vacuum or sweep material and place in a disposal container. Dust and particulate matter should be vacuumed with a filtered vacuum or wet swept where vacuuming is not feasible. Do not use compressed air or dry sweeping as a means of cleaning. Provide ventilation.

#### 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 : Avoid contact with skin, eyes and clothing. Do not breathe dust, fume, gas, mist, spray, vapours. Do not swallow. When using do not eat, drink or smoke. Handle and open container with care. Use only outdoors or in a well-ventilated area. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Avoid generating dust. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Wash hands, forearms and face thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

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

Storage conditions : Keep out of the reach of children. Store locked up. Keep away from food, drink and animal feeding stuffs. Store in dust-tight, dry, labelled containers. Store tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible materials. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area.

Incompatible materials : Refer to Section 10 on Incompatible Materials.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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

##### USA - ACGIH - Occupational Exposure Limits

Local name	Calcium oxide
ACGIH OEL TWA	2 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: URT irr
Regulatory reference	ACGIH 2020

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

##### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	5 mg/m <sup>3</sup> (respirable particulate matter)
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Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) (1309-37-1)	
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Magnesium oxide (MgO) (1309-48-4)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 mg/m <sup>3</sup> (inhalable particulate matter)
ACGIH chemical category	Not Classifiable as a Human Carcinogen

### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
Environmental exposure controls	: Avoid release to the environment.

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

<b>Hand protection:</b>
Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.
<b>Eye protection:</b>
Wear eye/face protection
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
Wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

#### Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Appearance	: No data available.
Colour	: Brown Grey
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	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: Not determined

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Flammability (solid, gas)	: Not flammable, Not combustible
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 2 – 3
Solubility	: Water: Insoluble
Partition coefficient n-octanol/water	: Not determined
Viscosity, kinematic	: No data available
Explosive limits	: No data available

Calcium oxide (1305-78-8)	
Boiling point	2850 °C Atm. press.: 101325 Pa Decomposition: 'no'
Vapour pressure	0 hPa (at 20 °C)

Magnesium oxide (MgO) (1309-48-4)	
Boiling point	3600 °C (at 1000 hPa)
Vapour pressure	0 hPa (at 20 °C)

Manganese dioxide (MnO <sub>2</sub> ) (1313-13-9)	
Vapour pressure	0 hPa (at 20 °C)

Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) (1344-28-1)	
Boiling point	2977 °C
Vapour pressure	0 hPa (at 20 °C)

Phosphorus oxide (P <sub>2</sub> O <sub>5</sub> ) (1314-56-3)	
Vapour pressure	< 1 hPa (at 20 °C)

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

Reactivity	: No dangerous reactions known under normal conditions of use. May react with water to produce silicates and calcium hydroxide. Silicates may react with strong oxidizers.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Heat. Incompatible materials.
Incompatible materials	: Strong oxidizing agents. Acids. Aluminum. Ammonium salts. Hydrochloric acid. Water.
Hazardous decomposition products	: May include, and are not limited to: oxides of carbon. Hydrogen sulfide gas may be released from moist or wet slag when heated. Contact with water and moisture, generates corrosive calcium hydroxide.
Hardening time:	: No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.

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Acute toxicity (inhalation) : Not classified.

<b>Slags, steelmaking (65996-71-6)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 4000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	> 5.235 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
<b>Calcium oxide (1305-78-8)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: other:US Federal Register 38: 187, Part 1500, Section 41, 1973.
LC50 inhalation rat	> 6.04 mg/l/4h
<b>Iron oxide (Fe2O3) (1309-37-1)</b>	
LD50 oral rat	> 10000 mg/kg
LD50 oral	> 5000 mg/kg bodyweight Animal: , Guideline: EU Method B.1 (Acute Toxicity (Oral))
<b>Magnesium oxide (MgO) (1309-48-4)</b>	
LD50 oral rat	3870 mg/kg
ATE CA (oral)	3870 mg/kg bodyweight
<b>Manganese dioxide (MnO2) (1313-13-9)</b>	
LC50 inhalation rat	> 1500 mg/m <sup>3</sup> (Exposure time: 4 h)
ATE CA (oral)	500 mg/kg bodyweight
ATE CA (Gases)	4500 ppmv/4h
ATE CA (vapours)	11 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h
<b>Aluminum oxide (Al2O3) (1344-28-1)</b>	
LD50 oral rat	> 5000 mg/kg
<b>Phosphorus oxide (P2O5) (1314-56-3)</b>	
LC50 inhalation rat	608.5 mg/m <sup>3</sup> (Exposure time: 4 h)
LC50 Inhalation - Rat (Dust/Mist)	0.304 mg/l/4h
ATE CA (vapours)	0.609 mg/l/4h
ATE CA (dust,mist)	0.304 mg/l/4h
Skin corrosion/irritation : Causes skin irritation.	
<b>Calcium oxide (1305-78-8)</b>	
pH	12.5 (saturated solution)
<b>Magnesium oxide (MgO) (1309-48-4)</b>	
pH	10.3 (saturated aqueous solution)

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Phosphorus oxide (P2O5) (1314-56-3)	
pH	3.6 Concentration: 0,1 g/L
Serious eye damage/irritation	: Causes serious eye damage.
Calcium oxide (1305-78-8)	
pH	12.5 (saturated solution)
Magnesium oxide (MgO) (1309-48-4)	
pH	10.3 (saturated aqueous solution)
Phosphorus oxide (P2O5) (1314-56-3)	
pH	3.6 Concentration: 0,1 g/L
Respiratory or skin sensitization	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Not classified.
Iron oxide (Fe2O3) (1309-37-1)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified.
Aluminum oxide (Al2O3) (1344-28-1)	
NOAEL (animal/male, F0/P)	1000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-single exposure	: May cause respiratory irritation.
Calcium oxide (1305-78-8)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Calcium oxide (1305-78-8)	
LOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.413 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
Iron oxide (Fe2O3) (1309-37-1)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0.2102 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	≥ 0.03 mg/l air Animal: rat, Animal sex: male
Manganese dioxide (MnO2) (1313-13-9)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aluminum oxide (Al2O3) (1344-28-1)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0.015 mg/l air Animal: rat, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.07 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)



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Aspiration hazard : Not classified.

Slags, steelmaking (65996-71-6)	
Animal studies and expert judgment for classification	False
Calcium oxide (1305-78-8)	
Animal studies and expert judgment for classification	False
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) (1309-37-1)	
Animal studies and expert judgment for classification	False
Magnesium oxide (MgO) (1309-48-4)	
Animal studies and expert judgment for classification	False
Manganese dioxide (MnO <sub>2</sub> ) (1313-13-9)	
Animal studies and expert judgment for classification	False
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) (1344-28-1)	
Animal studies and expert judgment for classification	False
Phosphorus oxide (P <sub>2</sub> O <sub>5</sub> ) (1314-56-3)	
Animal studies and expert judgment for classification	False

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.  
Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.  
Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.  
Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.  
Chronic symptoms : Causes damage to organs through prolonged or repeated exposure.  
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.  
Hazardous to the aquatic environment, short-term (acute) : Not classified.  
Hazardous to the aquatic environment, long-term (chronic) : Not classified.

Steelmaking Slag (Ladle Slag)	
Partition coefficient n-octanol/water	Not determined
Slags, steelmaking (65996-71-6)	
LC50 - Fish [1]	> 100 g/l Test organisms (species): Leuciscus idus
LC50 - Fish [2]	11 g/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	7.9 g/l Test organisms (species): other:Daphnia similis
EC50 - Crustacea [2]	> 100 g/l Test organisms (species): Daphnia magna
NOEC (chronic)	1563 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
LOEC (chronic)	5000 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

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Calcium oxide (1305-78-8)	
LC50 - Fish [1]	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
EC50 - Crustacea [1]	49.1 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	1130.3 mg/l Test organisms (species): Navicula seminulum
NOEC chronic fish	100 mg/l Test organisms (species): other:Tilapia nilotica Duration: '46 d'
NOEC (chronic)	32 mg/l Test organisms (species): Crangon septemspinosa Duration: '14 d'

Iron oxide (Fe2O3) (1309-37-1)	
LC50 - Fish [1]	100000 mg/l (Exposure time: 96 h - Species: Danio rerio [static])
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	> 100 mg/l Test organisms (species):
EC50 72h - Algae [1]	> 20 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Aluminum oxide (Al2O3) (1344-28-1)	
EC50 72h - Algae [1]	1.05 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Phosphorus oxide (P2O5) (1314-56-3)	
EC50 72h - Algae [1]	66.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

## 12.2. Persistence and degradability

Steelmaking Slag (Ladle Slag)	
Persistence and degradability	Not established.

## 12.3. Bioaccumulative potential

Steelmaking Slag (Ladle Slag)	
Bioaccumulative potential	Not established.
Partition coefficient n-octanol/water	Not determined

Calcium oxide (1305-78-8)	
BCF - Fish [1]	(no bioaccumulation)

Manganese dioxide (MnO2) (1313-13-9)	
BCF - Fish [1]	(no bioaccumulation expected)
Partition coefficient n-octanol/water	< 0 (at 20 °C)

## 12.4. Mobility in soil

No additional information available

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### 12.5. Other adverse effects

Ozone : Not classified.  
Other information : No other effects known.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. The generation of waste should be avoided or minimized wherever possible.  
Additional information : Empty containers may contain residues which are hazardous.

## SECTION 14: Transport information

In accordance with TDG

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (TDG) : Not applicable

### 14.3. Transport hazard class(es)

**TDG**  
Transport hazard class(es) (TDG) : Not applicable

### 14.4. Packing group

Packing group (TDG) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

**TDG**  
No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. National regulations

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

### 15.2. International regulations

No additional information available

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### SECTION 16: Other information

Issue date : 2021-03-17  
Revision date : 2023-08-03

Indication of changes			
Section	Changed item	Change	Comments
2	Classification (GHS CA)	Modified	V2.0
SDS	SDS update	Modified	V2.0
SDS	Disclosure	Modified	V2.1

Other information : None.  
Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://www.Nexreg.com)



Safety Data Sheet (SDS), Canada - Nexreg 2022

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