

# Hot Rolled Plate, Slabs, Hot & Cold Rolled Sheet

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)  
Issue date: 2023-02-06 Revision date: 02-06 Version: 1.0



### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Article  
Product name : Hot Rolled Plate, Slabs, Hot & Cold Rolled Sheet

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

Recommended uses and restrictions : These products are sold to all steel-consuming industries including automotive, heavy machinery, construction, defense, and manufacturing.

#### 1.3. Supplier

##### Manufacturer

Algoma Steel  
105 West Street  
Sault Ste. Marie Ontario P6A 7B4  
Canada  
(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 Sens. 1	H317	May cause an allergic skin reaction
Carc. 1A	H350	May cause cancer
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure
Comb. Dust		May form combustible dust concentrations in air

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

##### GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : May form combustible dust concentrations in air  
H317 - May cause an allergic skin reaction  
H350 - May cause cancer  
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS CA) : 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/gas/mist/vapors/spray.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P272 - Contaminated work clothing should not be allowed out of the workplace.

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P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
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

Not applicable

### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Iron	Iron, elemental / Direct reduced Iron / Iron, reduced / Elemental iron / IRON POWDER / iron	CAS-No.: 7439-89-6	96 - 99
Manganese	Manganese, elemental / Manganese metal / manganese	CAS-No.: 7439-96-5	0 - 2
Chromium	Chromium metal / Chromium, elemental / Chromium, metal / Chromium, metallic / Chrome, metal / Chrome	CAS-No.: 7440-47-3	0 - 1.5
Nickel	Nickel metal / Nickel, elemental / Nickel, metallic / Nickel, metal / C.I. 77775	CAS-No.: 7440-02-0	0 - 1.5
Carbon	Carbon, activated / CARBON / Activated carbon / Carbon Black / Graphite / Active carbon	CAS-No.: 7440-44-0	0 – 0.6
Molybdenum	Molybdenum metal / Molybdenum, elemental / Molybdenum, metal / Molybdenum, metallic / molybdenum	CAS-No.: 7439-98-7	0 – 0.6
Copper	C.I. 77400 / C.I. Pigment Metal 2 / Copper, elemental / CI 77400 / Copper metal / Copper, metallic / Pigment Metal 2 / Granulated copper / copper	CAS-No.: 7440-50-8	0 – 0.6
Silicon	Silicon powder / Silicon powder, amorphous / Ammonium hexafluorosilicate / SILICON / silicon	CAS-No.: 7440-21-3	0 – 0.6

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Name	Chemical name / Synonyms	Product identifier	%
Vanadium	Vanadium, elemental / Vanadium metal / Ammonium trioxovanadate / vanadium	CAS-No.: 7440-62-2	0 – 0.15
Phosphorus elemental	Phosphorus / Red phosphorus / Phosphorus, red / Phosphorus, amorphous / Phosphorus (amorphous, red) / Phosphorus amorphous / Phosphorus red / Phosphorus (red) / Phosphorus elemental (red) / Phosphorus (red, yellow, white) / Phosphorus (white) / Phosphorus (yellow) / Phosphorous (yellow) / Phosphorus, white / Red phosphorous / phosphorus	CAS-No.: 7723-14-0	0 – 0.15

Comments : The product may have a light coating of a mineral oil based rust inhibitor to prevent corrosion. Commercial steel products contain small amounts of various elements in addition to those specified. These small quantities frequently referred to as "trace" or "residual" elements, generally originate in the raw materials used and/or are alloying metals. Individual trace elements vary in concentration by weight, and may include aluminum, columbium (niobium), and titanium.  
\*The concentrations listed represent actual ranges that result from batch variability.

### 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 or rash 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. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. 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 : May cause skin irritation. Repeated exposure may cause skin dryness or cracking. Skin contact with metallic dusts may cause physical abrasion. May cause an allergic skin reaction.

Symptoms/effects after eye contact : May cause eye irritation. Particles of iron or iron compounds may become imbedded in the eye. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

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

Chronic symptoms : May cause cancer. 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).

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### 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 : Combustible dust. Products of combustion may include, and are not limited to: oxides of carbon. Metal oxides. Irritating fumes.

Explosion hazard : Airborne dust in sufficient concentrations when confined and exposed to a sufficient ignition source can explode.

#### 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).

### 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. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Use only non-sparking tools.

#### 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 : Sweep or shovel spills into appropriate container for disposal. 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 : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin and eyes. Avoid generating and breathing dust. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Use only in well ventilated areas. Handling this product may result in electrostatic accumulation. Use proper grounding procedures.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

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

Storage conditions : Keep away from sources of ignition. Keep out of the reach of children. Keep container tightly closed. Store locked up. Store in dust-tight, dry, labelled containers. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Manganese (7439-96-5)	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	0.1 mg/m <sup>3</sup> (inhalable particulate matter)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>Chromium (7440-47-3)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Metallic chromium, as Cr(0)
ACGIH OEL TWA	0.5 mg/m <sup>3</sup> (inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Resp tract irr
Regulatory reference	ACGIH 2020
<b>USA - ACGIH - Biological Exposure Indices</b>	
BEI (BLV)	0.7 µg/l Parameter: Total chromium - Medium: urine - Sampling time: end of shift at end of workweek (population based)
<b>Nickel (7440-02-0)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	1.5 mg/m <sup>3</sup> (inhalable particulate matter)
ACGIH chemical category	Not Suspected as a Human Carcinogen
<b>USA - ACGIH - Biological Exposure Indices</b>	
BEI (BLV)	5 µg/l Parameter: Nickel - Medium: urine - Sampling time: post-shift at end of workweek (background)
<b>Molybdenum (7439-98-7)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	10 mg/m <sup>3</sup> (inhalable particulate matter) 3 mg/m <sup>3</sup> (respirable particulate matter)
<b>Copper (7440-50-8)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	0.2 mg/m <sup>3</sup> (fume)

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### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e, there is not leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
Environmental exposure controls	: Avoid release to the environment.

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

#### Hand protection:

Wear suitable gloves resistant to chemical penetration

#### Eye protection:

Safety glasses or goggles are recommended when using product.

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. 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.

#### 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	: Metallic.
Color	: Gray
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=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	: No data available
Flammability (solid, gas)	: May form combustible dust concentrations in air
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available

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Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available

Iron (7439-89-6)	
Boiling point	2861 °C Atm. press.: 1013 hPa
Auto-ignition temperature	> 100 °C
Vapor pressure	0.000001 hPa (at 25 °C)

Manganese (7439-96-5)	
Vapor pressure	1 mm Hg (at 1292 °C)

Chromium (7440-47-3)	
Boiling point	2642 °C

Nickel (7440-02-0)	
Vapor pressure	1 mm Hg (at 1810 °C)

Carbon (7440-44-0)	
Auto-ignition temperature	300 – 500 °C

Molybdenum (7439-98-7)	
Boiling point	4612 °C (at 101.3 hPa)

Copper (7440-50-8)	
Boiling point	2567 °C
Vapor pressure	0 hPa (at 1400 °C)

Silicon (7440-21-3)	
Boiling point	2355 – 3265 °C Atm. press.: 101,3 kPa

Vanadium (7440-62-2)	
Boiling point	3380 °C

Phosphorus elemental (7723-14-0)	
Boiling point	280 °C
Flash point	< 20 °C
Auto-ignition temperature	30 – 45 °C (at 1013 hPa)
Vapor pressure	0.033 hPa (at 20 °C)

### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

Reactivity	: No dangerous reactions known under normal conditions of use.
Chemical stability	: Stable under normal conditions. May form combustible dust concentrations in air.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Heat. Incompatible materials. Avoid dust formation.
Incompatible materials	: Reducing agents. Strong acids. Strong bases.
Hazardous decomposition products	: May include, and are not limited to: oxides of carbon. Metal oxides. Irritating fumes.
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
Acute toxicity (inhalation)	: Not classified

<b>Iron (7439-89-6)</b>	
LD50 oral rat	30 g/kg
ATE CA (oral)	30000 mg/kg body weight
<b>Manganese (7439-96-5)</b>	
LD50 oral rat	9 g/kg
LC50 inhalation rat	> 5.14 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))
ATE CA (oral)	9000 mg/kg body weight
<b>Chromium (7440-47-3)</b>	
LC50 inhalation rat	> 5.41 mg/l Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
<b>Nickel (7440-02-0)</b>	
LD50 oral rat	> 9000 mg/kg
LC50 inhalation rat	> 10.2 mg/l (Exposure time: 1 h)
<b>Carbon (7440-44-0)</b>	
LD50 oral rat	> 10000 mg/kg
<b>Molybdenum (7439-98-7)</b>	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	> 5.84 mg/l/4h
<b>Copper (7440-50-8)</b>	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: other:
LC50 inhalation rat	> 5.11 mg/l/4h
<b>Silicon (7440-21-3)</b>	
LD50 oral rat	3160 mg/kg
LD50 dermal rabbit	> 5000 mg/kg body weight Animal: rabbit



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<b>Silicon (7440-21-3)</b>	
ATE CA (oral)	3160 mg/kg body weight
<b>Vanadium (7440-62-2)</b>	
LD50 oral rat	> 2000 mg/kg
LC50 inhalation rat	> 5.05 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method), Guideline: other:OECD Series on Testing and Assessment No. 125, Document No. ENV/JM/MONO (2010) 16, June 01, 2010
<b>Phosphorus elemental (7723-14-0)</b>	
LD50 oral rat	> 15000 mg/kg
Skin corrosion/irritation	: Not classified
<b>Phosphorus elemental (7723-14-0)</b>	
pH	≈ 3 Temp.: 37 °C Concentration: (≈)10 g/L Remarks on result: 'other:'
Serious eye damage/irritation	Not classified
<b>Phosphorus elemental (7723-14-0)</b>	
pH	≈ 3 Temp.: 37 °C Concentration: (≈)10 g/L Remarks on result: 'other:'
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	May cause cancer.
<b>Chromium (7440-47-3)</b>	
IARC group	3 - Not classifiable
<b>Nickel (7440-02-0)</b>	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
Reproductive toxicity	Not classified
<b>Carbon (7440-44-0)</b>	
NOAEL (animal/male, F0/P)	≥ 859 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
<b>Silicon (7440-21-3)</b>	
NOAEL (animal/male, F0/P)	5000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: other:OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
STOT-single exposure	Not classified
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
<b>Manganese (7439-96-5)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
<b>Nickel (7440-02-0)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

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<b>Vanadium (7440-62-2)</b>	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
<b>Phosphorus elemental (7723-14-0)</b>	
NOAEL (oral, rat, 90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Aspiration hazard	Not classified
<b>Iron (7439-89-6)</b>	
Animal studies and expert judgment for classification	False
<b>Manganese (7439-96-5)</b>	
Animal studies and expert judgment for classification	False
<b>Chromium (7440-47-3)</b>	
Animal studies and expert judgment for classification	False
<b>Nickel (7440-02-0)</b>	
Animal studies and expert judgment for classification	False
<b>Carbon (7440-44-0)</b>	
Animal studies and expert judgment for classification	False
<b>Molybdenum (7439-98-7)</b>	
Animal studies and expert judgment for classification	False
<b>Copper (7440-50-8)</b>	
Animal studies and expert judgment for classification	False
<b>Silicon (7440-21-3)</b>	
Animal studies and expert judgment for classification	False
<b>Vanadium (7440-62-2)</b>	
Animal studies and expert judgment for classification	False
<b>Phosphorus elemental (7723-14-0)</b>	
Animal studies and expert judgment for classification	False
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: May cause skin irritation. Repeated exposure may cause skin dryness or cracking. Skin contact with metallic dusts may cause physical abrasion. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: May cause eye irritation. Particles of iron or iron compounds may become imbedded in the eye. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic symptoms	: May cause cancer. Causes damage to organs through prolonged or repeated exposure.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

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### 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

<b>Iron (7439-89-6)</b>	
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	> 10000 mg/l Test organisms (species): Daphnia magna
<b>Manganese (7439-96-5)</b>	
LC50 - Fish [1]	> 3.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
EC50 - Crustacea [1]	> 1.6 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	4.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	2.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '8 d'
<b>Chromium (7440-47-3)</b>	
EC50 - Crustacea [1]	13.1 – 14.7 mg/l Test organisms (species): Daphnia magna
<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 - Crustacea [1]	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [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])
<b>Copper (7440-50-8)</b>	
LC50 - Fish [1]	0.0068 – 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 - Fish [2]	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 72h - Algae [1]	0.0426 – 0.0535 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h - Algae [1]	0.031 – 0.054 mg/l (Species: Pseudokirchneriella subcapitata [static])
<b>Silicon (7440-21-3)</b>	
EC50 72h - Algae [1]	≈ 250 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<b>Phosphorus elemental (7723-14-0)</b>	
LC50 - Fish [1]	0.0017 – 0.0035 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 - Fish [2]	0.001 – 0.004 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

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Phosphorus elemental (7723-14-0)	
EC50 - Crustacea [1]	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	0.025 – 0.037 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

### 12.2. Persistence and degradability

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Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

Phosphorus elemental (7723-14-0)	
BCF - Fish [1]	< 200

### 12.4. Mobility in soil

No additional information available

### 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 : Recycle the material as far as possible. Dispose in a safe manner in accordance with local/national regulations.

## 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

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### 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

**State Regulations:** The product, **Hot Rolled Plate, Slabs, Hot & Cold Rolled Sheet** as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations:

California Proposition 65: Algoma's steel products may contain trace elements known to the State of California to cause cancer or reproductive toxicity. This includes chromium and nickel.

## SECTION 16: Other information

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Other information : None. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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Safety Data Sheet (SDS), Canada

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