Hot Rolled Carbon Steel Merchant Bars

Safety Data Sheet

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

Revision date: 12/21/2017 Version: 2.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture

Product name : Hot Rolled Carbon Steel Merchant Bars

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)

Skin sensitisation, Category 1	H317
Carcinogenicity, Category 1	H350

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) : H317 - May cause an allergic skin reaction.
H350 - May cause cancer.

Precautionary statements (GHS-CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P261 - Avoid breathing dust, fume, vapours.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see supplemental first aid instruction on this label)
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

Other hazards not contributing to the classification : Exposure to massive forms of steel presents no health hazards. Grinding, thermal cutting, or melting may produce dust or fumes. Dust or fumes may contain elemental constituents. Exposure to elemental constituents presents the hazards described in this sheet.

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)
Iron oxide (Fe2O3)	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	(CAS-No.) 1309-37-1	94.7	Not classified
Manganese	Manganese, elemental / Manganese metal / Manganese elemental	(CAS-No.) 7439-96-5	2	Not classified
Copper	C.I. 77400 / C.I. Pigment Metal 2 / Copper, elemental / CI 77400 / Copper metal / Copper, metallic / Pigment Metal 2 / Granulated copper	(CAS-No.) 7440-50-8	1.5	Not classified
Carbon dioxide	Dry ice / CARBON DIOXIDE	(CAS-No.) 124-38-9	0.9	Not classified
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
Silicon	Silicon powder	(CAS-No.) 7440-21-3	0.4	Not classified

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 : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of water/…. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

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

Symptoms/effects after inhalation : May cause an allergic skin reaction.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Unsuitable extinguishing media

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

5.3. Specific hazards arising from the hazardous product

Fire hazard : Not flammable.

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so.

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.

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. Avoid breathing dust, fume. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a well-ventilated place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Iron oxide (Fe2O3) (1309-37-1)		
Canada (Quebec)	VEMP (mg/m³)	5 mg/m³ (dust and fume)
Alberta	OEL TWA (mg/m³)	5 mg/m³ (respirable)
British Columbia	OEL STEL (mg/m³)	10 mg/m³ (fume)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total particulate matter containing no Asbestos and <1% Crystalline silica-total particulate)
Ontario	OEL TWA (mg/m³)	5 mg/m³ (respirable)

Manganese (7439-96-5)		
Canada (Quebec)	VEMP (mg/m³)	0.2 mg/m³ (total dust and fume)
Alberta	OEL TWA (mg/m³)	0.2 mg/m³
British Columbia	OEL TWA (mg/m³)	0.2 mg/m³
Ontario	OEL TWA (mg/m³)	0.2 mg/m³

Copper (7440-50-8)		
Canada (Quebec)	VEMP (mg/m³)	0.2 mg/m³ (fume)
Alberta	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
British Columbia	OEL TWA (mg/m³)	1 mg/m³ (dust and mist)
Ontario	OEL TWA (mg/m³)	0.2 mg/m³ (fume)

Carbon dioxide (124-38-9)		
Canada (Quebec)	VECD (mg/m³)	54000 mg/m³
Canada (Quebec)	VECD (ppm)	30000 ppm
Canada (Quebec)	VEMP (mg/m³)	9000 mg/m³
Canada (Quebec)	VEMP (ppm)	5000 ppm
Alberta	OEL STEL (mg/m³)	54000 mg/m³
Alberta	OEL STEL (ppm)	30000 ppm
Alberta	OEL TWA (mg/m³)	9000 mg/m³
Alberta	OEL TWA (ppm)	5000 ppm
British Columbia	OEL STEL (ppm)	15000 ppm
British Columbia	OEL TWA (ppm)	5000 ppm
Ontario	OEL STEL (ppm)	30000 ppm
Ontario	OEL TWA (ppm)	5000 ppm

Nickel (7440-02-0)		
Canada (Quebec)	VEMP (mg/m³)	1 mg/m³
Alberta	OEL TWA (mg/m³)	1.5 mg/m³
British Columbia	OEL TWA (mg/m³)	0.05 mg/m³
Ontario	OEL TWA (mg/m³)	1 mg/m³ (inhalable)

Silicon (7440-21-3)		
Canada (Quebec)	VEMP (mg/m³)	10 mg/m³ (containing no Asbestos and <1% Crystalline silica-total dust)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total dust)

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Avoid dust formation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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	:	No data available
Colour	:	grey Metallic
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	:	1540 °C
Freezing point	:	No data available
Boiling point	:	5432 °F
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Vapour pressure at 50 °C	:	No data available
Relative density	:	7.85
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
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	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced. On combustion, forms: carbon oxides (CO and CO2).

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

Iron oxide (Fe2O3) (1309-37-1)	
LD50 oral rat	> 10000 mg/kg

Manganese (7439-96-5)	
LD50 oral rat	9 g/kg

Nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg

Silicon (7440-21-3)	
LD50 oral rat	3160 mg/kg

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : May cause cancer.

Reproductive toxicity : Not classified

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects after inhalation : May cause an allergic skin reaction.
Symptoms/effects after skin contact : May cause an allergic skin reaction.
Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Not classified

Copper (7440-50-8)	
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 Daphnia 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])

Carbon dioxide (124-38-9)	
BCF fish 1	(no bioaccumulation)

Nickel (7440-02-0)	
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

Hot Rolled Carbon Steel Merchant Bars	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Hot Rolled Carbon Steel Merchant Bars	
Bioaccumulative potential	Not established.

Carbon dioxide (124-38-9)	
BCF fish 1	(no bioaccumulation)

12.4. Mobility in soil

Hot Rolled Carbon Steel Merchant Bars	
Ecology - soil	Not established.

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

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

Not regulated for transport

14.2. Transport information/DOT

Department of Transport

Not regulated for transport

14.3. Air and sea transport

IMDG

Not regulated for transport

IATA

Not regulated for transport

SECTION 15: Regulatory information

15.1. National regulations

Hot Rolled Carbon Steel Merchant Bars
Listed on the Canadian DSL (Domestic Substances List)

Iron oxide (Fe2O3) (1309-37-1)
Listed on the Canadian DSL (Domestic Substances List)

Manganese (7439-96-5)
Listed on the Canadian DSL (Domestic Substances List)

Copper (7440-50-8)
Listed on the Canadian DSL (Domestic Substances List)

Carbon dioxide (124-38-9)
Listed on the Canadian DSL (Domestic Substances List)

Nickel (7440-02-0)
Listed on the Canadian DSL (Domestic Substances List)

Silicon (7440-21-3)
Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Hot Rolled Carbon Steel Merchant Bars
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Iron oxide (Fe2O3) (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

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

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

Carbon dioxide (124-38-9)

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Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
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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

Toxic Substance (CEPA – Schedule I)	Yes

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)
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Listed on the United States TSCA (Toxic Substances Control Act) inventory
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Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Silicon (7440-21-3)

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)
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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 : 12/21/2017

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:

H317	May cause an allergic skin reaction.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

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