

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : Hot Rolled Carbon Steel Reinforcing Bar

#### 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  
 Tampa, FL 33607  
 T (800) 876-3626

#### 1.4. Emergency telephone number

Emergency number : 800-424-9300 CHEMTREC

### SECTION 2: Hazard(s) identification

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

##### GHS US classification

Skin sensitization, H317 May cause an allergic skin reaction  
 Category 1  
 Carcinogenicity Category 2 H351 Suspected of causing cancer

Full text of H statements : see section 16

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

##### GHS US labeling

Hazard pictograms (GHS US) : 

Signal word (GHS US) : Warning

Hazard statements (GHS US) : H317 - May cause an allergic skin reaction  
 H351 - Suspected of causing cancer

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P272 - Contaminated work clothing must not be allowed out of the workplace.  
 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.  
 P321 - Specific treatment (see supplemental first aid instruction on this label).  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P363 - Wash contaminated clothing 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 which do not result in classification

No additional information available

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

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	(CAS-No.) 1309-37-1	91.1	Not classified
Manganese	(CAS-No.) 7439-96-5	2	Aquatic Acute 2, H401
Copper	(CAS-No.) 7440-50-8	1.5	Aquatic Acute 1, H400
Carbon dioxide	(CAS-No.) 124-38-9	0.9	Press. Gas (Comp.), H280
Nickel	(CAS-No.) 7440-02-0	0.5	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372
Silicon	(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 general : If you feel unwell, seek medical advice (show the label where possible). Never give anything by mouth to an unconscious person.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Gently wash with plenty of soap and 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.

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

- 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.

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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

- Fire hazard : Not flammable.
- Reactivity in case of fire : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. 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 environment.
- Protection during firefighting : 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

- General measures : Stop leak if safe to do so.

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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### 6.3. Methods and material 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.
- Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

- Storage conditions : Store in a dry place. Store in a well-ventilated place. Keep cool.
- Incompatible products : Strong acids. Strong bases.
- Incompatible materials : Sources of ignition.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Hot Rolled Carbon Steel Reinforcing Bar</b>	
No additional information available	
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable particulate matter)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (fume) 15 mg/m <sup>3</sup> (total dust (Rouge)) 5 mg/m <sup>3</sup> (respirable fraction (Rouge))
<b>Silicon (7440-21-3)</b>	
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
<b>Manganese (7439-96-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	0.02 mg/m <sup>3</sup> (respirable particulate matter) 0.1 mg/m <sup>3</sup> (inhalable particulate matter)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (fume)
<b>Copper (7440-50-8)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup> (fume)
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> (fume) 1 mg/m <sup>3</sup> (dust and mist)
<b>Carbon dioxide (124-38-9)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (ppm)	5000 ppm
ACGIH STEL (ppm)	30000 ppm
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>

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OSHA PEL (TWA) (ppm)	5000 ppm
<b>Nickel (7440-02-0)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (inhalable particulate matter)
ACGIH chemical category	Not Suspected as a Human Carcinogen
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

### 8.2. Appropriate engineering controls

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

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

#### Hand protection:

Protective gloves

#### Eye protection:

Chemical goggles or safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### 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 : Solids. Metallic.  
Color : Gray  
Odor : odorless  
Odor threshold : No data available  
pH : No data available  
Melting point : 1540 °C  
Freezing point : Not applicable  
Boiling point : 3000 °C  
Flash point : Not applicable  
Relative evaporation rate (butyl acetate=1) : No data available  
Flammability (solid, gas) : Non flammable.  
Vapor pressure : No data available  
Relative vapor density at 20 °C : No data available  
Relative density : 7.85  
Solubility : No data available  
Partition coefficient n-octanol/water (Log Pow) : No data available  
Auto-ignition temperature : Not applicable  
Decomposition temperature : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available  
Explosion limits : Not applicable  
Explosive properties : No data available

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Oxidizing properties : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. On combustion, forms: carbon oxides (CO and CO<sub>2</sub>).

## 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 (Fe <sub>2</sub> O <sub>3</sub> ) (1309-37-1)	
LD50 oral rat	> 10000 mg/kg

Silicon (7440-21-3)	
LD50 oral rat	3160 mg/kg
ATE US (oral)	3160 mg/kg body weight

Manganese (7439-96-5)	
LD50 oral rat	9 g/kg
ATE US (oral)	9000 mg/kg body weight

Nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg
LC50 Inhalation - Rat	> 10.2 mg/l (Exposure time: 1 h)

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 : Suspected of causing cancer.

Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) (1309-37-1)	
IARC group	3 - Not classifiable

Nickel (7440-02-0)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

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STOT-repeated exposure : Not classified

<b>Nickel (7440-02-0)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
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

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
LC50 fish 1	100000 mg/l (Exposure time: 96 h - Species: Danio rerio [static])
<b>Manganese (7439-96-5)</b>	
LC50 fish 1	> 3.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
<b>Copper (7440-50-8)</b>	
LC50 fish 1	0.0068 – 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
<b>Nickel (7440-02-0)</b>	
LC50 fish 1	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	1.3 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 2	1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

<b>Carbon dioxide (124-38-9)</b>	
BCF fish 1	(no bioaccumulation)

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

No additional information available

### 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.

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### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Hot Rolled Carbon Steel Reinforcing Bar

SARA Section 311/312 Hazard Classes

Health hazard - Carcinogenicity  
Health hazard - Respiratory or skin sensitization

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Manganese	CAS-No. 7439-96-5	2%
Copper	CAS-No. 7440-50-8	1.5%
Nickel	CAS-No. 7440-02-0	0.5%

##### Copper (7440-50-8)

CERCLA RQ

5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm

##### Nickel (7440-02-0)

CERCLA RQ

100 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm

#### 15.2. International regulations

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

Listed on the TCSI (Taiwan Chemical Substance Inventory)

##### Silicon (7440-21-3)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

##### Manganese (7439-96-5)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

##### Copper (7440-50-8)

Listed on the TCSI (Taiwan Chemical Substance Inventory)


##### Carbon dioxide (124-38-9)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

##### Nickel (7440-02-0)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### 15.3. US State regulations

 **WARNING:** This product can expose you to Nickel, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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Component	State or local regulations
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )(1309-37-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Silicon(7440-21-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Manganese(7439-96-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
Copper(7440-50-8)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
Carbon dioxide(124-38-9)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Nickel(7440-02-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances; U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

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Revision date : 09/30/2020

Full text of H-phrases:

H280	Contains gas under pressure; may explode if heated
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life

SDS US (GHS HazCom 2012)

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