Low Carbon (mild steel) Steel Products

SAFETY DATA SHEET
(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

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The most recent version of this document can be found at www.ContechES.com

SDS CON1
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Product(s): Low Carbon (mild steel) Steel Products **#200,209,221,231,400**

Product Use: Industrial use or Construction Use

SECTION II - HAZARD IDENTIFICATION

Hazard-determining components of labeling:
Cold Rolled, Hot Rolled Steel and Enameling Steel is considered an article under Reach regulation (REACH REGULATION (EC) No 1907/2006) and is not subject to classification under CLP regulation (REGULATION (EC) No 1272/2008). However, Cold Rolled, Hot Rolled Steel and Enameling Steel is not exempt as an article under OSHA's Hazard Communication Standard (29 CFR 1910.1200) due to its downstream use, thus this product is considered a mixture and a hazardous material. Therefore, the categories of Health Hazards as defined in "GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), Third revised edition ST/SG/AC.10/30/Rev. 3" United Nations, New York and Geneva, 2009 have been evaluated. Refer to Section 3, 8 and 11 for additional information.
This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are only relevant to these processes.

2.1 Classification of the substance or mixture
Skin Sensitization – Category 1
Specific Target Organ Toxicity Repeat Exposure – Category 1 (lung)
Carcinogen – Category 2
Toxic to Reproduction – Category 2
Eye Irritation – Category 2B
Specific Target Organ Toxicity: Single Exposure – Category 3 (Lung)
Acute Toxicity – Oral – Category 4

2.2a Signal word DANGER!

2.2b Hazard Statements

May cause an allergic skin reaction
May cause damage to lungs through prolonged or repeated inhalation
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
Dust, particles and fumes cause eye irritation
May cause respiratory irritation
Harmful if swallowed.

2.2c Pictograms

2.2d Precautionary statements

Do not handle until all safety precautions have been read and understood.
Obtain special instructions before use.
Wear impervious gloves, eye protection, and protective clothing.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.
Wash contaminated clothing after use, before re-use, and before removing from workplace.
Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, air-negative-pressure purifying respirator equipped with P100 filter is acceptable for concentrations up to 10 times the exposure limit. Full-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 50 times the exposure limit. Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).
Do not breathe dust / fumes.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If on skin (or hair): Wash thoroughly with water.
If significant skin irritation or rash occurs: get medical advice or attention.
Immediately seek medical attention if symptoms are significant or persist.
Dispose of material in accordance with all regulations.

2.3 Additional Information

None

2.3a HNOC – Hazards not otherwise classified: None known

2.3b Unknown Acute Toxicity: None known

SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	CAS No.	% by Weight
Iron	7439-89-6	> 96
Manganese	7439-96-5	≤ 2.5

Chromium	7440-47-3	≤ 1.0
Copper	7440-50-8	≤ 1.0
Molybdenum	7439-98-7	≤ 1.0
Nickel	7440-02-0	≤ 1.0

SECTION IV – FIRST AID MEASURES

4.1 Description of the first-aid measures

General information: This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are only relevant to these processes.

After inhalation:. Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. In case of unconsciousness, place patient stably in side position for transportation.

After skin contact: Wash skin with cool water and pH-neutral soap or a mild detergent. If significant skin irritation or rash occurs: get medical advice or attention.

After eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

After swallowing: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms/effects, acute and delayed

Inhalation: May cause damage to lungs through prolonged or repeated inhalation

Skin contact: May cause an allergic skin reaction

Eye Contact: Dust, particles and fumes cause eye irritation

Ingestion: Harmful if swallowed.

4.3 Indication of immediate medical attention and special treatment needed:

None known.

SECTION V - FIRE FIGHTING MEASURES

This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are only relevant to these processes.

5.1 Flammability of the Product: Non-flammable and non-combustible. Finely divided dust is combustible.

5.2 Suitable extinguishing agents: Treat for surrounding material

5.3 Special hazards arising from the substance or mixture: None

5.3a Products of Combustion: None

5.3b Explosion Hazards in Presence of Various Substances: Non-explosive in presence of shocks

SECTION VI – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Wear personal protective equipment (See section VIII). Keep unprotected persons away.

6.2 Methods and material for containment and cleaning up:

For spills involving finely divided particles, clean-up personnel should be protected against contact with eyes and skin. IF material is in a dry state, avoid inhalation of dust. Dispose of unwanted materials and containers properly in accordance with all regulations.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

7.1 Handling

Precautions for safe handling: Wear protective equipment for hands to protect from sharp edges. Wear protective equipment to protect feet and body from injury due to the weight of this material. Further processing including welding, burning, & grinding, etc., has the potential for generating high concentrations of airborne particulates and fumes and should be evaluated and controlled as necessary. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

7.2 Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep out of the reach of children..

SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

8.1 Components with limit values that require monitoring at the workplace:

Hazardous Components	PEL (OSHA)	TLV (ACGIH)
	mg/M^3	mg/M^3
Iron	10 (as FeOx fume)	5.0
Chromium	0.5 (as Cr II & III)	0.5
	1.0 (as Cr, metal)	0.5
	0.005 (as Cr VI, inorganics)	0.01
Copper	0.1 (as fume, Cu)	0.1
	1.0 (as dust & mist)	1.0
Manganese	5.0 (as fume, Mn compounds)	0.2
Molybdenum	15 (as total dust)	10
	5 (respirable fraction)	10
Nickel	1.0 (as Ni & insoluble)	1.5 (resp metal), 0.2 (resp inorganics)

8.2 Exposure Controls

Use ventilation adequate to keep exposures below recommended exposure limits.

8.3 General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

8.3a Personal protective equipment

Protection of hands:

Wear gloves of adequate length to offer appropriate skin protection. Cut resistant gloves have been found to offer adequate protection for incidental contact.

Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety glasses.

Respiratory protection:

Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, air-negative-pressure purifying respirator equipped with P100 filter is acceptable for concentrations up to 10 times the exposure limit. Full-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 50 times the exposure limit. Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

General Information

Appearance

Form: Metallic

Color: Gray

Odor: None

pH-value at 20°C (68 °F):	Not applicable
Boiling point/Boiling range:	Not applicable
Melting point/Freezing Point:	~2750°F (~1510°C)
Flash point:	Not applicable
Auto igniting:	Product is not self-igniting
Vapor pressure at 21°C (70°F)	Not available
Density at 25°C (77 °F):	7.85 g/cm3
Solubility in Water:	Insoluble
VOC content:	Not applicable

SECTION X – STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal storage conditions. Keep in dry storage.

10.3 Possibility of hazardous reaction

No dangerous reaction known under conditions of normal use.

10.4 Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

10.5 Incompatible materials

Will react with strong acids to form hydrogen. Iron oxide dusts in contact with calcium hypochlorite evolve oxygen and may cause an explosion.

10.6 Hazardous Decomposition or By-products

Thermal oxidative decomposition of steel products can produce flames containing oxides of iron and manganese as well as other alloying elements.

SECTION XI – TOXICOLOGICAL INFORMATION

11.1 Exposure Routes: Skin contact, skin adsorption, eye contact, inhalation, or ingestion.

11.2 Symptoms related to physical/chemical/toxicological characteristics:

Inhalation: As sold/shipped is not likely form of exposure

Skin contact: As sold/shipped is not likely form of exposure.

Eye Contact: As sold/shipped is not likely form of exposure

Ingestion: As sold/shipped is not likely form of exposure.

11.3 Delayed, immediate and chronic effects of short-term and long-term exposure

This formed solid metal product poses little or no immediate health or fire hazard. When product is subjected to welding, burning, melting, sawing, brazing, grinding or other processes, potentially hazardous airborne particulate and fumes may be generated. The hazards identified below are relevant to these processes.

Short Term

Skin Corrosion/Irritation: Not corrosive.

Skin Sensitization: May cause an allergic skin reaction.

Eye Damage/Irritation: Causes eye irritation.

Respiratory Sensitization: Not available

Specific Target Organ Toxicity-Single Exposure: (Category 3) May cause an allergic skin reaction.

Aspiration Hazard: Not available

Harmful if swallowed.

Long Term

Carcinogenicity: Suspected of causing cancer through chronic inhalation of dust or fumes.
Germ Cell Mutagenicity: Not available
Reproductive Toxicity: Toxic to reproduction – Category 2.
Specific Target Organ Toxicity- Repeated Exposure: (Category 1) Causes damage to lungs through prolonged/repeated exposure of dust or fumes.
Synergistic/Antagonistic Effects: Not available.

SECTION XII – ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No further relevant information available.
12.2 Persistence and degradability
No further relevant information available.
12.3 Bioaccumulative potential:
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.
12.5 Other Adverse Effects
No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Method
The material should be recycled whenever possible, but may be land filled. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302). Disposal must be made in accordance with local, state and federal regulations.
13.2 Other disposal considerations
Uncleaned packaging
Recommendation: Disposal must be made in accordance with local, state and federal regulations.
Recommended cleansing agent: Not applicable

SECTION XIV – TRANSPORT INFORMATION

	DOT (U.S.)	TDG (Canada)
UN-Number	Not Regulated	Not Regulated
UN proper shipping name	Not Regulated	Not Regulated
Transport Hazard Class(es)	Not Regulated	Not Regulated
Packing Group (if applicable)	Not Regulated	Not Regulated

14.1 Environmental hazards:
Not Available
14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code
Not available
14.3 Special precautions for user
Do not handle until all safety precautions have been read and understood.

SECTION XV – OTHER REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislations specific for the chemical
Canada

WHMIS Classification: Considered to be a hazardous material under the Hazardous Products Act as defined by the Hazardous Products Regulations and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the HPR.

15.2 US Federal Information

SARA 302/311/312/313 Components

The product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372:

CAS	Chemical	% by Weight
7440-47-3	Chromium	1.0 max
7440-50-8	Copper	1.0 max
7439-96-5	Manganese	2.5 max
7440-02-0	Nickel	1.0 max

15.3 State Right to Know Laws

California Prop. 65 Components

 WARNING: This product can expose you to chemicals including nickel which is known to the State of California to cause cancer and hexavalent chromium compounds which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION XVI – OTHER INFORMATION

Last Updated: January 24, 2019

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein.

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End of SDS