

Section 1 – Identification

Product Identifier used on Label: Sheet steel.

Use/Description: Sheet steel for thin gauge framing products.

Products: Cold-Formed Steel Framing components and accessories for drywall, curtain wall and load bearing systems.

Synonyms: Hot Band, Cold Rolled, P&O, Galvanized.

Company Identification and Emergency Contact Information:



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Section 2 – Hazard(s) Identification

Classification of the chemical: Sheet 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, Sheet 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.

Signal word, hazard statement(s), symbols and precautionary statement(s):

Hazard Symbol	Hazard Classification	Signal Word	Hazard Statement(s)
	Carcinogenicity - 2 Reproductive Toxicity - 2 Single Target Organ Toxicity (STOT) Repeat Exposure -1	Danger	Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to lungs and central nervous system through prolonged or repeated inhalation exposure. Harmful if swallowed. May cause an allergic skin reaction. Harmful in contact with skin. May cause respiratory irritation. Causes eye irritation.
	Acute Toxicity-Oral - 4 Skin Sensitization - 1 STOT Single Exposure - 3		
NA	Eye Irritation-2B		

Precautionary Statement(s):

Prevention	Response	Storage/Disposal
Do not breathe dusts / fume / gas / mist / vapor / spray. Wear protective gloves / protective clothing / eye protection / face protection. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in well ventilated areas. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.	If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed, concerned or feel unwell: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If on skin: Wash with plenty of water. If irritation or rash occurs: Get medical advice/attention. Take off and wash contaminated clothing before reuse. Call a poison center/doctor if you feel unwell.	Dispose of contents in accordance with federal, state and local regulations.

Hazards not otherwise classified: None Known

Unknown acute toxicity statement (mixture): None Known

Section 3 – Composition/Information on Ingredients

Mixtures

Chemical name	CAS Number	Weight %
Iron	7439-89-6	80-99.5
Zinc	7440-66-6	0.5-19.0
Manganese	7439-96-5	0.0-1.35
Nickel	7440-02-0	0-0.2

This product is an alloy. At temperatures above the melting point steel products may liberate fumes containing oxides of iron and alloying elements. Composition Comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Product contains less than 0.004% cadmium and less than 0.01% lead, mercury, hexavalent, chromium, antimony, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

Section 4 – First-aid Measures

Eye Contact- In case of overexposure to dusts, immediately flush eyes with plenty of water for at least 15 minutes occasionally lifting the eye lids. Get medical attention if irritation persists.

Skin Contact - In case of overexposure to dusts or particulates, wash with soap and plenty of water. Get medical attention if irritation develops or persists.

Inhalation - In case of overexposure to dusts, remove to fresh air. Get immediate medical attention if symptoms worsen.

Ingestion - If excessive amounts of dust or particulates are swallowed, treat symptomatically. Get medical attention.

Section 5 – Fire-fighting Measures

Extinguishing Techniques-Steel products do not present fire hazards. Not applicable.

Any non-oxidized fine metal particles/ dust generated by grinding, sawing, abrasive blasting, or individual customer processes may produce materials that the customer should test for combustibility and other hazards in accordance with applicable regulations. High concentrations of combustible metallic fines in the air may present an explosion hazard.

Section 6 - Accidental Release Measures

Released material precautions: Not Applicable for Sheet steel as sold/shipped. For spills involving finely divided particles, clean-up personnel should be protected against contact with eyes and skin. Avoid inhalation of dust.

Methods and materials of containment and clean up: Not Applicable for Sheet steel as sold/shipped. Fine turnings and small chips should be swept or vacuumed and placed into appropriate disposable containers. Please recycle when appropriate.

Section 7 - Handling and Storage

Handling precautions-Do not handle without appropriate safety apparel and/or devices.

Storage-Store away from strong oxidizers, acids, or incompatible products.

Section 8 - Exposure Controls / Personal Protection

Operations with potential for producing high concentrations of airborne particulates or fumes should be evaluated and measured as necessary.

Eye Protection - Use safety glasses. Dust resilient safety goggles are recommended under circumstances where particles could cause injury such as grinding or cutting. Face shield should be used when welding or cutting.

Skin - Appropriate protective gloves should be worn as necessary. Good personal hygiene practices should be followed including cleansing exposed skin several times daily with soap and water, and laundering or dry cleaning soiled work clothing.

Respiratory Protection - NIOSH/MSHA approved dust/fume/mist respirator should be used to avoid excessive exposure. See Section 3 for component material information exposure limits. If such concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator use, fitting, and training standards and regulations.

Ventilation - Provide general and/or local exhaust ventilation to control airborne levels of dust or fumes below exposure limits.

Exposure Guidelines - No permissible exposure limits (PEL) or threshold limit values (TLV) exist for steel. See Section 3 for component materials. Some grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

Section 9 - Physical and Chemical Properties

Appearance and Odor – Silver grey to grey black with metallic luster.

Boiling Point - Not applicable

Melting Point - Approximately 2800 oF

pH - Not applicable

Specific Gravity (at 15.6oC) - Not applicable

Density (at 15.6 oC) - Not applicable

Vapor Pressure - Not applicable

Vapor Density (air = 1) - Not applicable

% Volatile, by Volume - Not applicable

Solubility in Water - Insoluble.

Evaporation Rate (Butyl Acetate = 1) - Not applicable

Other Physical and Chemical Data - None

Section 10 - Stability and Reactivity

Reactivity: under normal conditions of use, the storage and transportation of this product is stable.

Chemical Stability: Steel products are stable under normal storage and usage conditions.

Possibility of hazardous reaction: None Known







Conditions to Avoid: Storage with strong acids or incompatible materials.

Incompatible Materials: Strong acids

Hazardous Decomposition Products: Metal oxides.

Section 11 - Toxicological Information

The following toxicity data has been determined for **Sheet steel** when further processed using the information available for its components applied to the guidance on the preparation of an SDS under the GHS requirements of OSHA and the EU CPL:

Hazard Classification	Hazard Category		Hazard Symbols	Signal Word	Hazard Statement
	EU	OSHA			
Acute Toxicity Hazard (covers Categories 1-4)	NA	4 ^a		Warning	Dangerous if swallowed.
Eye Damage/ Irritation (covers Categories 1, 2A and 2B)	NA	2B ^c	No Pictogram	Warning	Causes eye irritation.
Skin/Dermal Sensitization (covers Category 1)	NA	1 ^d		Warning	May cause an allergic skin reaction.
Carcinogenicity (covers Categories 1A, 1B and 2)	NA	2 ^g		Warning	As a solid product, it is not classified as a carcinogen.
Toxic Reproduction (covers Categories 1A, 1B and 2)	NA	2 ^h		Warning	Suspected of harm with fertility or the unborn child.
Specific Target Organ Toxicity (STOT) Following Single Exposure (covers Categories 1-3)	NA	3 ⁱ		Warning	May cause respiratory irritation.
STOT following Repeated Exposure (covers Categories 1 and 2)	NA	1 ^j		Danger	Can cause damage to lungs and central nervous system through sustained or repeated inhalation exposure.

Toxicological data listed below are presented regardless to classification criteria. Individual hazard classification categories where the toxicological information has met or exceeded a classification criteria threshold are listed above.

a. No LC₅₀ or LD₅₀ has been established for Sheet steel. The following data has been determined for the components:

- **Iron:** Rat LD₅₀=98.6 g/kg (REACH)
Rat LD₅₀=1060 mg/kg (IUCLID)
Rat LD₅₀=984 mg/kg (IUCLID)
Rabbit LD₅₀=890 mg/kg (IUCLID)
Guinea Pig LD₅₀=20 g/kg (TOXNET)
- **Nickel:** LD₅₀>9000 mg/kg (Oral/Rat)
- **Silicon:** LD₅₀ = 3160 mg/kg (Oral/Rat)
- **Manganese:** Rat LD₅₀ > 2000 mg/kg (REACH)
Rat LD₅₀ > 9000 mg/kg (NLM Toxnet)

Information on likely routes of exposure:

Ingestion: Solid steel: Not applicable, due to the form of the product. However, ingestion of dusts generated in working operations may cause nausea and vomiting.

Inhalation: No inhalation hazard under normal conditions. Welding, burning, sawing, brazing, grinding or machining operations may produce fumes and dusts of metal oxides. High absorptions of freshly formed fumes/dusts of metal oxides can produce signs of metal fume illness. Typical symptoms last 12 to 48 hours and are characterized by metallic taste in the mouth, dryness, and irritation of the throat, followed by weakness, muscle pain, fever, and chills.

Skin contact: Under normal conditions of intended use, this material does not pose a risk to health. Dust may irritate skin. Contact with hot material can cause thermal burns which may result in permanent damage.

Eye contact: Under normal conditions of intended use, this product does not pose a risk to health. Contact with scorching material can cause thermal burns which may result in permanent damage. Grinding and sanding this product may generate particles that may irritate the eyes. Symptoms include itching, burning, redness, and tearing of eyes.

Section 12 - Ecological Information

Ecotoxicity Not expected to be harmful to aquatic organisms.

Components Species Test Results

Iron (CAS 7439-89-6)

Aquatic

Fish LC50 Channel catfish (*Ictalurus punctatus*) > 500 mg/l, 96 hours

Nickel (CAS 7440-02-0)

Aquatic

Fish LC50 Fathead minnow (*Pimephales promelas*) 2.916 mg/l, 96 hours

Zinc (CAS 7440-66-6)

Aquatic

Fish LC50 Rainbow trout, donaldson trout 0.24 mg/l, 96 hours
(*Oncorhynchus mykiss*)

Persistence and degradability No data available.

Bioaccumulative potential No data available on bioaccumulation.

Mobility in soil Not available.

Mobility in general Not relevant, due to the form of the product.

Other adverse effects None known.

Section 13 - Disposal Considerations

Recycle, rather than disposal, should be the definitive goal of handling efforts. Dispose in accordance with federal, state, and local health and environmental regulations. Prevent materials from entering drains, sewers, or waterways.

Section 14 - Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

Not applicable.

Section 15 - Regulatory Information

This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, dusts and fumes from this product may be combustible or hazardous and require protection to comply with applicable Federal, state and local laws and regulations.

California Proposition 65: This product contains chemicals (antimony [oxide], arsenic, beryllium, chromium [hexavalent], cobalt, cadmium, lead, nickel) known to the State of California to cause cancer and chemicals (cadmium, lead) known to the State of California to cause birth defects or other reproductive harm.

Massachusetts Substance List: Aluminum, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Hydrochloric acid, Lead, Magnesium, Manganese, Molybdenum, Nickel, Nitrogen, Phosphorus, Selenium, Silicon, Sulfur, Tin, Titanium, Tungsten, Vanadium, Zinc

Pennsylvania Hazardous Substance List: Aluminum, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Hydrochloric acid, Lead, Magnesium, Manganese, Molybdenum, Nickel, Nitrogen, Phosphorus, Selenium, Silicon, Sulfur, Tin, Titanium, Tungsten, Vanadium, Zinc

New Jersey Hazardous Substance List: Aluminum, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Hydrochloric acid, Lead, Magnesium, Manganese, Molybdenum, Nickel, Nitrogen, Phosphorus, Selenium, Silicon, Sulfur, Tin, Titanium, Tungsten, Vanadium, Zinc

Toxic Substances Control Act (TSCA)

Components of this product are listed on the TSCA Inventory.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Steel is not reportable, however, it contains hazardous substances that may be reportable if released in pieces with diameters less than or equal to 0.004 inches (RQ marked with a “*”).

Sheet Steel

Chemical Name	Reportable Quantity (in lb)
Antimony	5000*
Arsenic	1*
Beryllium	10*
Cadmium	10*
Chromium	5000*
Copper	5000*
Lead	10*
Nickel	100*
Phosphorus	1
Selenium	100*
Zinc	1000*

Section 16 - Other Information

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This SDS covers MBA BUILDING SUPPLIES product as delivered from the MBA BUILDING SUPPLIES facilities, but does not include chemicals that may be applied by subsequent handlers and/or distributors of this product. This could include a variety of materials including oils, paints, etc. that are not included in this SDS. During welding, precautions should be taken for airborne contaminants that may originate from components of the welding rod. Arc or spark generated when welding or burning could be a source of ignition for combustible and/or flammable materials.

Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable; however, the information is provided without any representation or warranty, expressed or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use and 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 this product.