Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Wood-Nailer Joist

SECTION 1: Identification

Product identifier

Product name: Wood-Nailer Joist

Also applies to: Steel Joist with Wood Nailer, Joist Girders, Bridging & Accessories (Painted, Unpainted, and/or Galvanized)

Additional information: This product is not hazardous as supplied, shipped or sold. However, if subjected to further processing (such as cutting, welding, soldering, smelting, grinding, or polishing) hazardous substances may be released and made available for exposure. The Hazard Classification and corresponding label elements provided in Section 2 of this SDS are applicable to this product (steel portion only) in such a scenario. Consideration should also be given to the generation of metal oxides and wood dust and any associated health and/or physical hazards.

Recommended use of the product and restriction on use

Relevant identified uses: Steel Fabricated Parts

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

New Millennium Building Systems, LLC
1992 NW Bascom Norris Drive
Lake City, FL 32055
386-466-1300

New Millennium Building Systems, LLC
6115 County Road 42
Butler, IN 46721
260-868-6000

New Millennium Building Systems, LLC
100 Diuguids Lane
Salem, VA 24153
540-389-0211

New Millennium Building Systems, LLC
Carr. Panamericana 9920
Col. Puente Alto
C.P. 32695 Ciudad Juarez
Chihuahua, Mexico
915-298-5050

New Millennium Building Systems, LLC
3565 US Highway 32 North
Hope, AR 71801
870-722-4100

New Millennium Building Systems, LLC
8200 Woolery Way
Fallon, NV 89406
775-867-2130

Emergency telephone number:

United States

CHEMTREC

Domestic Shipments: 1-800-929-9300 (24 hours)

International Shipments: +1-703-742-5970 (24 hours)

Customer Number: CCN828604

SECTION 2: Hazard(s) identification

GHS classification:

Skin sensitization, category 1

Respiratory sensitization, category 1

Carcinogenicity, category 2

Reproductive toxicity, category 2

Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H317 May cause an allergic skin reaction
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351 Suspected of causing cancer
H361 Suspected of damaging fertility or the unborn child

Precautionary statements:

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
P284 Wear respiratory protection
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P321 Specific treatment (see Sections 4 - 8 of this SDS and any supplemental information on the product label).
P363 Wash contaminated clothing before reuse
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P308+P313 IF exposed or concerned: Get medical advice/attention
P405 Store locked up
P501 Dispose of contents/container in accordance with local, regional, state and federal regulations.

Hazards not otherwise classified:

METAL FUME FEVER: Excessive inhalation of metal fumes may cause a flu-like illness called "Metal Fume Fever". Symptoms include: headache, fever, chills, muscle aches, thirst, nausea, vomiting, chest soreness, fatigue, gastrointestinal pain and weakness. The symptoms usually start several hours after exposure; the attack may last 6 to 24 hours. Complete recovery generally occurs without intervention within 24 to 48 hours. Metal Fume Fever is more likely to occur after a period away from the job (after weekends or vacations) and usually last from 12 to 48 hours.

If this product is subjected to "hot work" (such as soldering, welding, brazing, smelting) hazardous by-products will be formed as oxides of the metal(s) in this product. Such metal oxides may pose additional health hazards.

Further processing of this product may compromise the product coating(s), resulting in the release hazardous fumes of gases. Observe safety measures suited to the coating(s) when handling, cutting or melting.

Sawing, sanding or machining wood or wood products can generate dust. Depending on moisture content, particle diameter and concentration, wood dust may form combustible dust concentrations in air. Dust may ignite or form explosive mixture with air in the presence of an ignition source causing a flash fire or deflagration hazard.

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7439-89-6	Iron	94-99
CAS number: 7439-96-5	Manganese	0.25-1.65
CAS number: 7440-44-0	Carbon	0.1-1.1
CAS number: 7440-50-8	Copper	<0.99
CAS number: 7440-47-3	Chromium	<0.9
CAS number: 7440-02-0	Nickel	0.3-0.75
CAS number: 7440-21-3	Silicon	0.05-0.5
CAS number: 7439-98-7	Molybdenum	0.01-0.2
CAS number: Not Applicable	Untreated lumber	<20

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

This product may contain a coating at a concentration below 1.0% by weight. SDS's for specific coatings are available upon request.

SECTION 4: First aid measures

Description of first aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

This product is not hazardous as supplied, shipped or sold. The first aid measures described below are applicable only if hazardous chemicals are made available for exposure during further processing of this product.

After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

After skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After eye contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After swallowing:

Not a likely route of exposure.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

This product is not hazardous as supplied, shipped or sold. The acute effects/symptoms described below are applicable to exposure during further processing of this product.

Exposure to airborne dusts and fumes may cause skin and eye irritation (chemical and mechanical). Symptoms include redness, burning, tearing, itching and inflammation.

Exposure to airborne dusts or fumes may cause respiratory irritation. Symptoms include cough, breathing difficulties, inflammation of the mucous membranes lining the respiratory tract and nose and throat pain.

Dermal exposure may cause an allergic skin reaction. Symptoms may include irritation, redness, pain, rash, inflammation, itching, burning and dermatitis.

Inhalation exposure may cause allergy, asthma symptoms or breathing difficulties. Symptoms may include cough, chronic phlegm, shortness of breath, wheezing and chest tightness. Symptoms may be delayed.

Excessive inhalation of metal fumes may cause a flu-like illness called "Metal Fume Fever". Symptoms include: headache, fever, chills, muscle aches, thirst, nausea, vomiting, chest soreness, fatigue, gastrointestinal pain and weakness. The symptoms usually start several hours after exposure; the attack may last 6 to 24 hours. Complete recovery generally occurs without intervention within 24 to 48 hours. Metal Fume Fever is more likely to occur after a period away from the job (after weekends or vacations) and usually last from 12 to 48 hours.

Delayed symptoms and effects:

This product is not hazardous as supplied, shipped or sold. The delayed effects/symptoms described below are applicable to exposure during further processing of this product.

Effects are dependent on exposure (dose, concentration, contact time).

Repeated or prolonged exposure to metal fumes and dust may cause damage to organs.

Prolonged or repeated inhalation exposure to excessive concentrations of iron and iron oxide fumes or dust may result in the development of a benign pneumoconiosis, called siderosis and reduced pulmonary function.

Chronic inhalation exposure to nickel and nickel compounds may cause lung fibrosis and pneumoconiosis.

Prolonged or repeated exposure to fumes and dust of manganese and manganese oxide may adversely affect the lungs, resulting in increased susceptibility to bronchitis and pneumonitis. Long-term exposure to manganese compounds may affect the central nervous system.

Repeated or prolonged inhalation of chromium oxide dust or fume may cause nasal ulceration and perforation of the nasal septum. Repeated or prolonged exposure to hexavalent chromium may damage the kidneys, resulting in kidney impairment.

Chronic inhalation of dusts & fumes of metallic copper causes congestion of nasal mucous membranes, ulceration and perforation of the nasal septum, & pharyngeal congestion. Chronic exposure may also cause a green discoloration of the hair, skin and teeth and have adverse effects on the liver and kidneys.

Chronic exposure to wood dust can cause a decrease in pulmonary function and asthma.

Repeated or prolonged exposure to fumes and dust may cause cancer.

Inhalation of nickel and nickel oxide fume and dust may cause lung cancer.

Exposure to hexavalent chromium may cause cancer. Studies have shown that chromate production workers exposed to hexavalent chromium compounds have an excess of lung and sinus cancers.

Inhalation of excessive concentrations of iron and iron oxide dust and fume may enhance the risk of lung cancer development in workers exposed to carcinogens.

Exposure to copper fumes is associated with an increased risk of pancreatic cancer.

Exposure to hardwood dust may cause cancer, particularly of the nose.

Long term exposure to molybdenum may affect fertility. Symptoms include, but are not limited to: menstrual problems, altered sexual behavior/fertility/ and pregnancy outcome.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use extinguishers appropriate for surrounding materials.

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Wood dust may form combustible dust concentrations in air. Dust may ignite or form explosive mixture with air in the presence of an ignition source causing a flash fire or deflagration hazard.

Thermal decomposition may release irritating and toxic fumes including, but not limited to, iron oxides, manganese oxides, carbon oxides, chromium oxides, copper oxides, nickel oxides, silicon oxides and molybdenum oxides.

Special protective equipment for firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution. When using extinguishers, avoid dispersing combustible dusts into the air. Aim extinguishers directly at the base of the flames and apply the agent as gently as possible. Overall, give preference to using medium to wide spray patterns rather than solid streams.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Not applicable to product as supplied, shipped and sold.

For spills involving dust generated from further processing: Wear recommended personal protective equipment (see Section 8). Avoid contact with eyes, skin and clothing. Do not breathe dust or fumes. Wear suitable respiratory protection if inhalation of airborne dust is possible. Avoid generation of dust or actions that result in dust becoming airborne. Wash thoroughly after handling.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up:

Avoid dust generation or stirring up dust. Collect material and place in a suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to other sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and storage

Precautions for safe handling:

Avoid contact with sharp edges and hot surfaces. Wear appropriate personal protective equipment (see Section 8). Use work methods which minimize dust/fume production. Dust deposits should not be allowed to accumulate on surfaces. Avoid dispersal of dust in the air. Clean dust residues at regular intervals; Do not use brooms or compressed air hoses to clean surfaces. Do not breathe fumes and dusts generated during further processing (such as welding, soldering, smelting, grinding, or polishing). Follow the recommendations in ANSI Z49.1, Safety in welding and cutting (ANSI-American National Standard Institute).

Conditions for safe storage, including any incompatibilities:

Store in a dry place. Store away from heat, open flames and other sources of ignition. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
OSHA	Iron	7439-89-6	8-Hour TWA-PEL: 10 mg/m³ (As Iron Oxide Fume or Dust)
	Manganese	7439-96-5	Ceiling Limit: 5 mg/m³
	Manganese	7439-96-5	TWA: 1 mg/m³ ([Fume.])
	Carbon	7440-44-0	8-Hour TWA-PEL: 15 mg/m³ (Graphite (Synthetic),total dust)
	Carbon	7440-44-0	8-Hour TWA-PEL: 5 mg/m³ (Graphite (Synthetic), respirable fraction)
	Copper	7440-50-8	8-Hour TWA-PEL: 1 mg/m³ (copper metal and oxides - dust and mists))
	Copper	7440-50-8	8-Hour TWA-PEL: 0.1 mg/m³ (copper metal and oxides - fume)
	Chromium	7440-47-3	8-Hour TWA-PEL: 1 mg/m³ (Chromium, Metal & Insoluble Salts as Cr)
	Chromium	7440-47-3	8-Hour TWA-PEL: 0.5 mg/m³ (for chromium (II) or (III) compounds)
	Chromium	7440-47-3	8-Hour TWA-PEL: 0.005 mg/m³ (for chromium VI and chromium oxides)
	Chromium	7440-47-3	Level Limit Value: 0.0025 mg/m³ (for chromium VI and chromium oxides - Immediate Action Level)
	Nickel	7440-02-0	8-Hour TWA-PEL: 1 mg/m³ (As Ni)
	Silicon	7440-21-3	8-Hour TWA-PEL: 15 mg/m³ (total dust)
	Silicon	7440-21-3	8-Hour TWA-PEL: 5 mg/m³ (respirable fraction)
	Molybdenum	7439-98-7	8-Hour TWA-PEL: 15 mg/m³ (total dust)
	Untreated lumber	Not Applicable	8-Hour TWA-PEL: 15 mg/m³ (total dust - All hard and soft woods except Western red cedar)

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Untreated lumber	Not Applicable	8-Hour TWA-PEL: 5 mg/m³ (respirable dust - All hard and soft woods except Western red cedar)
NIOSH	Iron	7439-89-6	REL: 5 mg/m³ (As Iron Oxide Fume or Dust)
	Iron	7439-89-6	IDLH: 2500 mg/m³ (As Iron Oxide Fume or Dust)
	Manganese	7439-96-5	REL-TWA: 1 mg/m³ (up to 10 hrs.)
	Manganese	7439-96-5	15-Minute STEL: 3 mg/m³
	Manganese	7439-96-5	IDLH: 500 mg/m³
	Manganese	7439-96-5	IDLH: 500 mg/m³
	Manganese	7439-96-5	STEL: 3 mg/m³
	Manganese	7439-96-5	REL: 1 mg/m³
	Carbon	7440-44-0	REL-TWA: 2.5 mg/m³ (Graphite (Natural), respirable, 10 h)
	Carbon	7440-44-0	IDLH: 1250 mg/m³
	Copper	7440-50-8	REL-TWA: 1 mg/m³ (copper metal and oxides - up to 10 hrs.)
	Copper	7440-50-8	IDLH: 100 mg/m³
	Copper	7440-50-8	REL-TWA: 0.1 mg/m³ (copper metal and oxides - fume - up to 10 hrs.)
	Chromium	7440-47-3	REL-TWA: 0.5 mg/m³ (Chromium, Metal & Insoluble Salts as Cr)
	Chromium	7440-47-3	IDLH: 250 mg/m³ (Chromium, Metal & Insoluble Salts as Cr)
	Chromium	7440-47-3	REL-TWA: 0.0002 mg/m³ (for chromium VI and chromium oxides)
	Nickel	7440-02-0	REL: 0.01 mg/m³ (As Ni, for up to a 10-h workday during a 40 h workweek)
	Nickel	7440-02-0	IDLH: 10 mg/m³
	Silicon	7440-21-3	REL-TWA: 5 mg/m³ (respirable - up to 10 hrs.)
	Silicon	7440-21-3	REL-TWA: 10 mg/m³ (total dust - up to 10 hrs.)
	Molybdenum	7439-98-7	IDLH: 5000 mg/m³
	Untreated lumber	Not Applicable	REL-TWA: 1 mg/m³ (up to 10 hr - All hard and soft woods except Western red cedar)
ACGIH	Iron	7439-89-6	8-Hour TWA: 5 mg/m³ (Iron Oxide Dust (respirable particulate))
	Manganese	7439-96-5	8-Hour TWA: 0.02 mg/m³ (respirable particulate matter)
	Manganese	7439-96-5	8-Hour TWA: 0.1 mg/m³ (inhalable particulate matter)
	Carbon	7440-44-0	8-Hour TWA: 2 mg/m³ (Graphite, respirable fraction)

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Copper	7440-50-8	8-Hour TWA: 1 mg/m³ (copper metal and oxides - dust and mists)
	Copper	7440-50-8	8-Hour TWA: 0.2 mg/m³ (copper metal and oxides - fume)
	Chromium	7440-47-3	8-Hour TWA: 0.5 mg/m³ (inhalable particulate matter - Chromium, Metal & Insoluble Salts as Cr)
	Chromium	7440-47-3	8-Hour TWA: 0.0002 mg/m³ (for chromium VI and chromium oxides - inhalable particulate matter)
	Chromium	7440-47-3	15-Minute STEL: 0.0005 mg/m³ (for chromium VI and chromium oxides - inhalable particulate matter)
	Nickel	7440-02-0	8-Hour TWA: 1.5 mg/m³ (Inhalable Fraction)
	Molybdenum	7439-98-7	8-Hour TWA: 10 mg/m³ (inhalable particulate matter)
	Molybdenum	7439-98-7	8-Hour TWA: 3 mg/m³ (respirable particulate matter)
	Untreated lumber	Not Applicable	8-Hour TWA: 1 mg/m³ (inhalable fraction - All hard and soft woods except Western red cedar)
	Untreated lumber	Not Applicable	8-Hour TWA: 0.5 mg/m³ (inhalable fraction - Western red cedar)
United States(California)	Manganese	7439-96-5	8-Hour TWA: 0.2 mg/m³
	Manganese	7439-96-5	15-Minute STEL: 3 mg/m³
	Manganese	7439-96-5	STEL: 3 mg/m³
	Manganese	7439-96-5	PEL: 0.2 mg/m³
	Manganese	7439-96-5	REL: 0.09 ug/m³ (Chronic Inhalation)
	Carbon	7440-44-0	8-Hour TWA-PEL: 2.5 mg/m³ (Graphite (Natural), respirable Dust)
	Carbon	7440-44-0	8-Hour TWA-PEL: 10 mg/m³ (Graphite (Synthetic), total dust)
	Carbon	7440-44-0	8-Hour TWA-PEL: 5 mg/m³ (Graphite (Synthetic), respirable fraction)
	Silicon	7440-21-3	8-Hour TWA-PEL: 10 mg/m³ (total dust)
	Silicon	7440-21-3	8-Hour TWA-PEL: 5 mg/m³ (respirable fraction)
	Molybdenum	7439-98-7	8-Hour TWA-PEL: 3 mg/m³ (Cal/OSHA - respirable)
	Molybdenum	7439-98-7	8-Hour TWA-PEL: 10 mg/m³ (Cal/OSHA - total dust)
	Untreated lumber	Not Applicable	8-Hour TWA-PEL: 2 mg/m³ (All hard and soft woods except Western red cedar)

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Untreated lumber	Not Applicable	8-Hour TWA-PEL: 0.5 mg/m³ (Western red cedar)
	Untreated lumber	Not Applicable	15-Minute STEL: 5 mg/m³ (All hard and soft woods except Western red cedar)

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

The engineering controls described below are recommended only if hazardous chemicals are made available for exposure during further processing of this product.

Use local exhaust, mechanical ventilation or additional engineering measures to maintain airborne concentration below any occupational exposure limits. Ensure that Emergency eye wash station and safety shower are in good working order and in the immediate vicinity of any possible exposure.

Personal protection equipment

Eye and face protection:

It is recommended that eye protection be worn at all times in a manufacturing or industrial environment. Wear safety goggles or safety glasses with side shields. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

A face shield is recommended, in addition to safety glasses or goggles, during sawing, grinding, or machining.

A welding helmet with appropriate shaded shield is required during welding, burning, or brazing.

Skin and body protection:

Wear protective gloves and suitable protective clothing. While handling product and/or steel packing material wear cut resistant gloves and sleeves for laceration protection.

When material is heated, wear gloves to protect against thermal burns. Thermally protective apron and long sleeves are recommended when volume of hot material is significant.

The skin protection described below is necessary only if hazardous chemicals are made available for exposure during further processing of this product.

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory protection:

The respiratory protection described below is necessary only if hazardous chemicals are made available for exposure during further processing of this product.

In case of insufficient ventilation, wear suitable respiratory protection. 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. Wear a properly fitted, air-purifying or air-fed respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

General hygienic measures:

Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday. Appropriate techniques should be applied to remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Observe any medical surveillance requirements.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Gray (painted), metallic gray (unpainted or galvanized) solid metal with wood nailer
Odor	None
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	2750 °F (1510 °C) for steel component
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	7.9 (Steel component)
Solubilities	Insoluble in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:
Not reactive under recommended handling and storage conditions.

Chemical stability:
Stable under recommended handling and storage conditions.

Possibility of hazardous reactions:
Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to avoid:
Incompatible materials; Dust accumulation and dispersal

Incompatible materials:
Strong acids; Oxidizing agents

Hazardous decomposition products:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Iron	oral	LD50 Rat: 30,000 mg/kg
Manganese	oral	LD50 Rat: 9000 mg/kg
Carbon	oral	LD50 Rat: >2000 mg/kg
Copper	oral	LD50 Mouse: 413 mg/kg
	inhalation	LC50 Rat: 11 mg/L (ATE (Acute Toxicity Estimate) - based on Hazard Classification)
Chromium	oral	LD50 Rat: >3400 mg/kg
	inhalation	LC50 Rat: >5.41 mg/L (4 h Aerosol)
Silicon	oral	LD50 Rat: 3160 mg/kg

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Untreated lumber	Causes skin irritation.

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Carbon	Causes serious eye irritation.
Copper	Fumes and dusts may cause serious eye irritation.
Chromium	Causes serious eye irritation.
Untreated lumber	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment:

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Product data:

No data available.

Substance data:

Name	Result
Chromium	May cause an allergic skin reaction.
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Nickel	May cause an allergic skin reaction.

Carcinogenicity

Assessment:

Suspected of causing cancer.

Product data: No data available.

Substance data:

Name	Species	Result
Iron	Not Applicable	Inhalation of excessive concentrations of iron oxide may enhance the risk of lung cancer development in workers exposed to carcinogens.
Copper		Exposure to copper fumes is associated with an increased risk of pancreatic cancer.
Nickel		Suspected of causing cancer.
Untreated lumber		Exposure to hardwood dust may cause cancer, particularly of the nose.

International Agency for Research on Cancer (IARC):

Name	Classification
Chromium	Group 3
Nickel	Group 2B
Untreated lumber	Group 1

National Toxicology Program (NTP):

Name	Classification
Chromium	Known to be human carcinogens
Nickel	Reasonably anticipated to be human carcinogens
Untreated lumber	Known to be human carcinogens

OSHA Carcinogens: Not applicable

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment:

Suspected of damaging fertility or the unborn child.

Product data:

No data available.

Substance data:

Name	Result
Molybdenum	Suspected of damaging fertility.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Carbon	May cause respiratory irritation.
Copper	Inhalation of copper fume results in irritation of the upper respiratory tract and an influenza-like illness termed metal fume fever.
Untreated lumber	May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Iron	Chronic inhalation of excessive concentrations of iron fumes or dust may result in the development of a benign pneumoconiosis, called siderosis.
Nickel	Causes damage to organs (lungs) through prolonged or repeated exposure.
Molybdenum	Repeated exposure to molybdenum compounds may raise the uric acid level in the body which may lead to the development of gout.
Untreated lumber	Chronic exposure to wood dust can cause a decrease in pulmonary function and asthma.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

Not Applicable to product as supplied, shipped and sold.

If subjected to further processing, the anticipated routes of exposure are inhalation, skin contact and eye contact.

Symptoms related to the physical, chemical and toxicological characteristics:

Refer to Section 4 of this SDS.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Carbon	EC50 Pseudokirchneriella subcapitata: >100 mg/L (72 h)
	EC50 Daphnia magna: >100 mg/L (48 h)
	EC50 Activated sludge of a predominantly domestic sewage: 1000 mg/L (3 h)

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Results of PBT and vPvB assessment

Product data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory agencies. Dispose of in accordance with all applicable local, regional, state and federal regulations.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA): All ingredients are listed or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 extremely hazardous substances: None of the ingredients are listed.

SARA Section 313 toxic chemicals:

7439-96-5	Manganese	Listed
7440-50-8	Copper	Listed
7440-47-3	Chromium	Listed
7440-02-0	Nickel	Listed

CERCLA: Not applicable – any listed substances are intrinsically bound in the product.

RCRA:

7440-47-3	Chromium	Listed	D007

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

7439-96-5	Manganese	Listed
7440-44-0	Carbon	Listed
7440-50-8	Copper	Listed
7440-47-3	Chromium	Listed
7440-02-0	Nickel	Listed
7440-21-3	Silicon	Listed
7439-98-7	Molybdenum	Listed

New Jersey Right to Know:

7439-89-6	Iron	Listed
7439-96-5	Manganese	Listed
7440-44-0	Carbon	Listed
7440-50-8	Copper	Listed
7440-47-3	Chromium	Listed
7440-02-0	Nickel	Listed
7440-21-3	Silicon	Listed
7439-98-7	Molybdenum	Listed

New York Right to Know:

7439-96-5	Manganese	Listed
7440-50-8	Copper	Listed
7440-47-3	Chromium	Listed
7440-02-0	Nickel	Listed
7439-98-7	Molybdenum	Listed

Pennsylvania Right to Know:

7439-89-6	Iron	Listed
7439-96-5	Manganese	Listed
7440-44-0	Carbon	Listed
7440-50-8	Copper	Listed
7440-47-3	Chromium	Listed
7440-02-0	Nickel	Listed
7440-21-3	Silicon	Listed
7439-98-7	Molybdenum	Listed

California Proposition 65:

⚠**WARNING:** This product can expose you to lead and lead compounds which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-0-0

HMIS: 0-0-0

Initial preparation date: 09.25.2020

End of Safety Data Sheet