SAFETY DATA SHEET

Section 1: Identification

Product Name: **Galvanized Steel, Steel Hardware, Steel Fittings**
Manufacturer: Hughes Brothers Inc.
210 North 13th Street
Seward, NE
General Phone Number: 1-402-643-2991
Emergency Phone Number: CHEMTREC: 1-800-424-9300
SDS Creation Date: July 10, 2015

Section 2: Hazard(s) Identification

GHS Pictograms: **None**

Signal Word: **None**

GHS Class:

Hazard Statements: **None**

Precautionary Statements:
Prevention: Observe good industrial hygiene practices.
Response: Wash skin with soap & water.
Storage: Store away from incompatible materials.
Disposal: Dispose of waste & residues in accordance with Federal, State and local regulations.

Emergency Overview: The purchased product should not be modified by sawing, cutting, welding or brazing, however, modifying any steel product can produce steel dust, which can cause a flammable or explosive hazard.
Dust causes eye, skin, and respiratory & digestive system irritation.

Route of Exposure: Eye contact, Skin contact, Inhalation of dust, Ingestion of dust.

Potential Health Effects:
Inhalation: Prolonged, repeated exposure to fumes or dusts generated during heating, cutting, brazing or welding may cause adverse health effects.
Skin: N/A
Eye: Prolonged or repeated exposure to fumes or dusts generated during heating, cutting, brazing or welding may cause pain & irritation of eyes.
Ingestion: N/A

Hazard(s) not otherwise classified: None known.

Section 3: Composition Information on Ingredients

Chemical Name	CAS Number	% Range	OSHA PEL
Primary Metals			
Iron	7439-89-6	92	NA
Chromium	7440-47-3	1	1.0 mg/m³
Nickel	7440-02-0	2	1.0 mg/m³
Manganese	7439-96-5	1	5.0 mg/m³
Silicon	7440-21-3	2.2	NA
Zinc, fume-dust(Galv Only)	7440-66-6	1.8	5.0 mg/m³

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Section 4: First Aid Measures

Eye Contact: Any Material that contacts the eye should be washed out immediately. Do not rub eye. If irritation or symptoms of overexposure persist, seek medical attention.

Skin Contact: Contact with dust: Wash affected area w/ soap & plenty of water. Cuts or abrasions should be treated promptly with thorough cleansing of the affected area. In case of burns with hot metal, rinse with plenty of cold water. If burns are severe, consult a physician.

Inhalation: In case of inhalation of fumes from heated product: Move into fresh air & keep at rest. Get medical attention if symptoms persist. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration.

Ingestion: Ingestion of this product is unlikely. Ingestion of dusts generated during working operations may cause nausea & vomiting. Call a physician or poison control center immediately. NEVER give anything by mouth to an unconscious person.

Most important Symptoms/effects Acute & delayed: Symptoms can include irritation, redness, scratching of the cornea & tearing. Mechanical rubbing may increase skin irritation. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise & muscular pain.

General Information: Processing may generate hazardous fumes & dusts.

Section 5: Fire-Fighting Measures

Flash Point: N/A

Auto Ignition Temperature: N/A

Flammable Limits in Air: N/A

Extinguishing Media: This material will not burn. Use fire-extinguishing media appropriate for surrounding materials.

Fire Fighting Instructions: Use standard firefighting procedures & consider the hazards of other involved materials.

Specific Hazards: Metallic coating will begin to melt around 427 C (800 F) & the metal will begin to melt around 1510 C (2750 F). This product will proceed to a liquid & will form irritation & toxic gaseous metallic oxides at extremely high temperatures.

Section 6: Accidental Release Measures

Galvanized Steel is unlikely to be involved in a release or spill as intended by this section. If Galvanized Steel is spilled, recover material & reuse.

Section 7: Handling & Storage

Handling: Avoid generation & spreading of dust. Do not breathe fumes or dust from this material. Avoid contact with sharp edges & hot surfaces. Use appropriate gloves & tools to ensure safe handling. Follow the recommendations in ANSI Z49.1, Safety in welding & cutting. (ANSI= American National Standard Institute)

Storage: No special storage considerations needed.

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Section 8: Exposure Controls/Personal Protection

Engineering Controls

Ventilation: Provide local exhaust &/or general ventilation when welding, burning, sawing, brazing, grinding or machining to prevent excessive dust or fume exposure.

Personal Protective Equipment

Eye & Face Protection: Safety glasses w/ side shields or goggles is required for welding, burning, sawing, brazing, grinding or machining operations.

Skin Protection: Wear protective gloves to prevent contact, cuts & abrasions.

Respiratory Protection: Not normally needed. This product is an alloy. At temperatures above the melting point steel product may liberate fumes containing oxides of iron & allying elements. Use a NIOSH/MSHA approved respirator if there is a risk of exposure

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

General: Always observe good personal hygiene measures, such as washing hands after handling material & before eating, drinking, and/or smoking. Routinely wash work clothing & protective equipment to remove contaminants.

Section 9: Physical and Chemical Properties

Chemical Formula: N/A

Molecular Weight: N/A

Appearance/Odor: Gray- Black or Silver Solid, Odorless

Specific Gravity: 7.0 (H_20=1)

Vapor Pressure: N/A

Boiling Point: N/A

Melting/Freezing Point: Melting point= 1538 degrees C (2800 degrees F)

Decomposition Temperature: N/A

Vapor Density: N/A

Solubility in Water: Insoluble

Volatiles, Percent by Volume: N/A

How to detect this substance: There are no unusual warning properties associated with this product.

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Section 10: Stability and Reactivity

Reactivity: This product is stable & non-reactive under normal conditions of use, storage & transport.

Chemical Stability: Stable

Conditions to Avoid: Contact with strong acids will release highly flammable hydrogen gas.

Incompatibility w/ Other Materials: Strong acids.

Hazardous Decomposition Products: Metal oxides.

Hazardous Polymerization: Metallic oxides are produced during welding or burning.

Section 11: Toxicological Information

Information of likely routes of exposure:

Ingestion: Solid steel: not relevant, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea & vomiting.

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

Skin Contact: Under normal conditions of intended use, the 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 material does not pose a risk to health. Contact with hot material can cause thermal burns which may result in permanent damage. Grinding & sanding this product may generate dust. Dust may irritate the eyes.

Acute Toxicity: Welding, cutting & metalizing can generate ozone. Ozone can cause irritation of eyes, nose & respiratory tract.

Section 12: Ecological Information

Section 13: Disposal Considerations

Dispose Waste & residues in accordance w/ appropriate Federal, state & local regulations.

Section 14: Transport Information

DOT SHIPPING DESCRIPTION (49 CFR 172.101) – Not applicable
Canadian shipping requirements- Not regulated as a hazardous material for transportation.
PLACARD REQUIRED – Not Applicable

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Section 15: Regulatory Information

SARA: 302 Extremely hazardous substance- Not listed; 311/312 Hazardous chemical- No
OSHA Specifically Regulated Substances: Not Regulated.
TSCA Section 12(b) Export Notification: Not Regulated.
Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) list:
Manganese (CAS 7439-96-5)
Nickel (CAS 7440-02-0)
Clean Air Act, Section 112(r) Accidental Release Prevention: Not Regulated.

Section 16: Other Information

Issue Date: 7-20-15

Revision Date:

Version # One (1)

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 safe guard workers and the environment.