

MATERIAL SAFETY DATA SHEET

HOG RINGS

1. IDENTIFICATION :

Supplier's Name: Hybroco Sales, Inc.
 Address: 400 North Clinton
 Stockbridge, Michigan 48444
 Telephone: 800-458-9353
 Chemical Name: Ferrous and Nonferrous Alloys (Generic)
 Common Name: Hog Rings (0.060" diameter wire)

2. HAZARDOUS INGREDIENTS:

The terms "hazardous" and "hazardous material" as used within this MSDS should be interpreted as defined by , and in accordance with, the OSHA Hazardous Communication Standard (29 CFR Part 1910, 1200) including cited Appendices, Lists, References, etc., all of which are hereby incorporated by reference.

	MATERIAL OR COMPONENT	CAS NO.	OSHA PERMISSIBLE EXPOSURE LIMITS (mg/m3)	ACGIH THRESHOLD LIMIT VALUES (mg/m3)	%WT
CARBON STEEL GLAVANIZED GalFan (Bezinal) ALUMINUM	Carbon	7440-44-0	N/A	N/A	0.04-0.25
	Manganese	7439-96-5	5.0	5.0	0.32-0.64
	Phosphorus	7723-14-0	0.1	0.1	0.008-0.012
	Sulfur	7446-09-5	13.0 as SO2	5.0 as SO2	0.004-0.020
	Copper	7440-50-8	1.0	1.0	0.20
	Nickel	7440-02-0	1.0	1.0	0.07
	Chromium	7440-47-3	1.0	0.5	0.04
	Aluminum	7429-90-5	None established	10	0.05
	Vanadium	7440-62-2	0.1-0.5 as V2O2	0.05	N/A
	Cobalt	7440-48-4	0.1	0.1	N/A

	MATERIAL OR COMPONENT	CAS NO.	OSHA PERMISSIBLE EXPOSURE LIMITS (mg/m3)	ACGIH THRESHOLD LIMIT VALUES (mg/m3)	%WT
STAINLESS (302/304)	Carbon	7440-44-0	N/A	N/A	0.0201
	Manganese	7439-96-5	5.0	5.0	1.626
	Phosphorus	7723-14-0	0.1	0.1	0.0313
	Sulfur	7446-09-5	13.0 as SO2	5.0 as SO2	0.0019
	Copper	7440-50-8	1.0	1.0	0.4132
	Nickel	7440-02-0	1.0	1.0	9.6803
	Chromium	7440-47-3	1.0	0.5	18.138
	Cobalt	7440-48-4	0.1	0.1	0.1731

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	A

3. PHYSICAL DATA

Boiling Point	High Boiling Point
Melting Point:	2400° to 2800° F
Specific Gravity:	~ 7.5-8.5
Vapor Density:	N/A
Vapor Pressure:	N/A
Solubility in H2O:	Insoluble
Percent Volatiles By Volume:	N/A
Evaporation:	N/A
Appearance and Odor:	Various Shapes, Solid, Odorless

4. FIRE AND EXPLOSION DATA

Flash Point:	N/A
Fire Point:	N/A

5. HEALTH HAZARD INFORMATION

Hybroco Sales, Inc. does not consider its product in its solid form to the end user a physical or health hazard. Subsequent operations such as welding, melting, brazing, cutting or processing in any other fashion may produce potentially hazardous fumes or dust which can be inhaled, swallowed, or come in contact with skin or eyes.

Route of Entry

Inhalation:	Remove to fresh air. If condition continues, consult physician.
Eye Contact:	Flush well with running water to remove particulate. Seek medical attention.
Skin Contact:	Brush or remove excess dust. Wash affected area well with soap and water. Launder clothing or uniform.
Ingestion:	Seek medical attention if large amounts of material have been ingested.
Effect of Exposure:	

Emergency First Aid

No toxic effects would be expected from exposure to the solid form of ferrous and non-ferrous metal. Prolonged repeated exposure to fumes or dust generated during welding, heating, brazing or cutting without proper protection or ventilation may or may not cause adverse health effects associated with the listed constituents in excess of OSHA's permissible exposure limits established in 29 CFR, Subpart 2 (see Section 2).

Exposure limits: Section 2 lists specific permissible exposure limits.

Special Note: Determine actual exposure by industrial monitoring.

Possible Signs and Symptoms of Exposure to Welding Fumes, Dust, and Gases

Short Term Exposure:

Metallic taste, Nausea, Tightness of Chest, Fever, Irritation of eyes, nose, throat and skin, Loss of consciousness due to lack of oxygen.

Long Term Exposure:

There are no adverse effects from the products in their solid form. Adverse effects may or may not result from long-term exposure to dust, fumes, gases, etc., that occur by way of subsequent operations on the product. We believe there is no reliable scientific studies which show that workers exposed to operations with our products suffer increased incidence of cancer or other disease because of exposure to our product.

6. REACTIVITY DATA

Stability:	Chemically stable
Incompatibility:	Reacts with very strong acids
Hazardous Decomposition Products:	Metallic Oxides

7. SPILL, LEAK OR DISPOSAL INFORMATION

Steps in case of release or spill:	Good housekeeping and discussion.
Waste Disposal Method:	Solid form, evaluate for usability or sale as scrap for reuse.
Dust, fumes, etc.:	Follow Federal, State and Local regulations regarding disposal.

8. SPECIAL PROTECTION INFORMATION

Ventilation Requirements:	Use general or local exhaust ventilation to keep airborne concentrations of dust and fumes below the Threshold Limit Values.
Personal Protection Equipment:	Gloves, Long Sleeves, and Ear Protection as Required
Respiratory Protection:	If dust, fumes or misting conditions occur and Threshold Limit Values as indicated in Section 2 is exceeded, provide NIOSH approved respirator.
Eye Protection:	Recommended approved safety glasses or goggles when working subsequent operations.

9. SPECIAL PRECAUTIONS

Use good shop practices to keep dust and fume concentrations at a minimum .

This material is protected with coating such as oils, rust inhibitors and other coatings. If these coatings are suspect to be contaminated, special precautions, such as in-house process control and protective equipment are appropriate to the nature of the suspected contaminants should be taken to avoid possible exposure when handling.

While the information set forth on the Material Safety Data Sheet is believed to be accurate, Hybroco Sales, Inc. and its divisions and subsidiaries, make no representations regarding the accuracy of the information herein and assume no liability for any loss, damage, or injury of any kind which may result from or arise out of the use of this information. Buyer assumes all such risks.