

# MATERIAL SAFETY DATA SHEET

## Abbreviations used on this Material Safety Data Sheet:

N/av. = Not available, N/ap. = Not applicable, ppm = parts per million, ACGIH: American Conference of Governmental Hygeinists  
TWA = Time weighted average

**WHMIS CLASS: NOT A CONTROLLED PRODUCT**

## SECTION 1 - PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER:	<b>STEEL WIRE BRIGHT</b>
PRODUCT USE:	Various applications.
SUPPLIER:	<b>Tree Island Industries Ltd.</b> P.O. Box 50, New Westminster, BC, Canada, V3L 4Y1
TELEPHONE:	(604) 524-3744, Business hours. +1 (604) 524-3756, 24-hour Emergency Number

## SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CONCENTRATION %	CAS NUMBER	LETHAL DOSE (50%) (SPECIES, ROUTE)	LETHAL CONCENTRATION (50%) (SPECIES, ROUTE)
Iron	95 min	7439-89-6	98600 mg/kg (oral/rat)	N/av.
Manganese	.2 to 1	7439-96-5	>9000 mg/kg (oral/rat)	N/av.
Chromium	Up to 0.1	7440-47-3	N/av.	N/av.
Nickel	Up to 0.1	7440-02-0	>9000 mg/kg (oral/rat)	2550 mg/m3 (rat/4hr)

## SECTION 3 - PHYSICAL DATA

PHYSICAL STATE:	<b>Solid</b>	ODOUR, APPEARANCE:	<b>Odourless.</b>	ODOUR THRESHOLD :	<b>N/ap.</b>
VAPOUR PRESSURE:	<b>N/a.</b>	VAPOUR DENSITY:	<b>N/ap.</b>	EVAPORATION RATE:	<b>N/ap.</b>
				BOILING POINT:	<b>3000° C</b>
pH:	<b>N/ap.</b>	SPECIFIC GRAVITY:	<b>7.85</b>	COEFFICIENT OF WATER/OIL DISTRIBUTION:	<b>Not soluble in water.</b>
				MELTING POINT:	<b>1300° C</b>

## SECTION 4 – FIRE AND EXPLOSION DATA

FLAMMABILITY:	<b>Massive metal is not flammable.</b>				
YES	<b>NO</b>	<b>X</b>			
MEANS OF EXTINGUISHION:	<b>No fire or explosion hazard – not combustible</b>				
SPECIAL PROCEDURES:	<b>N/a</b>				
FLASHPOINT:	<b>N/ap.</b>	UPPER FLAMMABILITY LIMIT: (% BY VOLUME)	<b>N/av.</b>	LOWER FLAMMABILITY LIMIT: (% BY VOLUME)	<b>N/av.</b>
AUTOIGNITION TEMPERATURE:	<b>N/a</b>	HAZARDOUS COMBUSTION PRODUCTS:	<b>N/a</b>		
SENSITIVITY TO IMPACT:	<b>Not sensitive. Stable material.</b>			SENSITIVITY TO STATIC DISCHARGE:	<b>Massive metal not sensitive.</b>

## SECTION 5 - REACTIVITY DATA

CHEMICAL STABILITY :	<b>Massive metal is stable.</b>				
YES	<b>X</b>	<b>NO</b>			
INCOMPATIBILITY :	<b>Avoid contact with strong acids which will react with the product to form flammable hydrogen gas.</b>				
YES	<b>X</b>	<b>NO</b>			
REACTIVITY:	<b>Hazarous polymerization will not occur.</b>				
HAZARDOUS DECOMPOSITION PRODUCTS:	<b>None</b>				

PRODUCT IDENTIFIER: **STEEL WIRE BRIGHT**

## SECTION 6 –TOXICOLOGICAL PROPERTIES

ROUTES OF ENTRY:

Inhalation: Only when heated. Skin: Minor Eyes: Minor Ingestion: minor

EFFECTS OF ACUTE EXPOSURE TO PRODUCT:

Metal fume formed from welding or heating of metal may cause respiratory irritation. Skin irritation is unlikely. Eye contact causes irritation due to the presence of a coatings only. Ingestion is unlikely to produce toxic effects.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT:

Prolonged or repeated contact with skin can cause dermatitis. Nickel is listed by IARC in Group 2B (possible human carcinogen). The NTP lists Nickel as a chemical which 'may reasonably be anticipated to be a carcinogen'. The ACGIH lists Nickel with carcinogenicity designation A5 – Not Suspected as a Human Carcinogen. Chromium is listed by IARC in Group 3 (Not Classifiable).

EXPOSURE LIMITS: ACGIH TLV-TWA Iron fume : 5 mg/m <sup>3</sup> Manganese fume : 1 mg/m <sup>3</sup> Chromium: 0.5 mg/m <sup>3</sup> Nickel: 1.5 mg/m <sup>3</sup> (inhalable fraction)	IRRITANCY : As above.	SENSITIZATION: Not reported.	CARCINOGENICITY: Nickel component is possible human carcinogen.
TERATOGENICITY: Not reported.	REPRODUCTIVE TOXICITY: Not reported.	MUTAGENICITY: Not reported.	SYNERGISTIC PRODUCTS: Not reported.

## SECTION 7 - PREVENTIVE MEASURES

GLOVES: General protective gloves.	RESPIRATOR : Respiratory protection normally not required. If fumes or dust are generated, use approved respiratory protection.	EYE: Safety glasses
FOOTWEAR: Safety boots.	CLOTHING : Coveralls or other work clothes.	OTHER: Eye wash station must be available.

ENGINEERING CONTROLS:

A combination of general dilution ventilation and local exhaust should be used when fumes or dusts are generated.

LEAK AND SPILL PROCEDURE:

N/ap.

WASTE DISPOSAL:

Follow all national, provincial, and local regulations.

HANDLING PROCEDURES AND EQUIPMENT:

Use adequate ventilation and personal protective equipment.

STORAGE REQUIREMENTS:

Store away from incompatible materials. See Section 5 of this MSDS.

SPECIAL SHIPPING INFORMATION:

Not regulated as dangerous goods.

## SECTION 8 - FIRST AID MEASURES

**EYE CONTACT:** Immediately flush eyes with water for 15 minutes while retracting eyelids. Seek medical attention.

**SKIN CONTACT:** Maintain good personal hygiene, wash with soap and water. Seek medical attention if necessary.

**INHALATION:** Remove victim to fresh air. Seek immediate medical attention.

**INGESTION:** Not generally expected. Seek medical attention if necessary.

## SECTION 9 – PREPARATION DATE OF MSDS

PREPARED BY: Sofya Solodkin, P.Eng, Tree Island Industries Reviewed by: Kel-Ex Agencies, A Division of ICC, The Compliance Center	PHONE NUMBER: (604)-524-3744	DATE: Original Preparation Date: Oct.31/2002, Reviewed and re-issued March 29, 2012
--	---------------------------------	---