



MATERIAL SAFETY DATA SHEET

SECTION I PRODUCT INFORMATION		
Product Name:	Hot Rolled Plate, Welded Wide Flange, Slabs, Hot and Cold Rolled Sheet	
Material Type:	Semi-finished Steel Products	
Product Use:	Steel fabrication	
Manufacture's Name & Address:	ESSAR Steel Algoma Inc. 105 West Street Sault Ste. Marie Ontario, Canada P6A 7B4	
Emergency Phone Numbers:	(705) 945-4058 (8:00 am – 4:00 pm) (705) 945-2271 (after hours)	Revision Date: June 23, 2009
WHMIS Class:	N/A	
TDG Information:	N/A	

SECTION II INGREDIENT LISTING					
			*TWAEV Ontario Regulation (833)	Toxicity	
Ingredient:	CAS. No.	%	(*PPM/mg/m ³)	LD50	LC50
Iron	7439-89-6	96-99	5.0 mg/m ³	30 gm/kg	NA
Manganese	7439-96-5	0-2	0.2 mg/m ³	9000 mg/kg	1750 mg/l
Chromium	7447-47-3	0-1	0.5 mg/m ³	NA	250 mg/kg
Nickel	7440-02-0	0-1	1.0 mg/m ³	NA	NA
Carbon	7440-44-0	0-0.6	3.5 mg/m ³	1.5 gm/kg	NA
Molybdenum	7439-98-7	0-0.6	10 mg/m ³	9000 mg/kg	2.8 mg/l
Copper	7440-50-8	0-0.6	1.0 mg/m ³	NA	0.4 mg/l
Silicon	7440-21-3	0-0.6	10 mg/m ³	NA	NA
Phosphorous	7723-14-0	0-0.15	0.1 mg/m ³	5 gm/kg	6.0 gm/kg
Vanadium	7440-62-2	0-0.15	NA	NA	NA
Aluminium	7429-90-5	0-0.1	10 mg/m ³	NA	NA
Columbium	7440-25-7	0-0.1	NA	NA	3.5 mg/m ³
Titanium	13463-67-3	0-0.1	10 mg/m ³	NA	5000 PPM

* TWAEV = Time Weighted Average Exposure Value

*PPM = Parts Per Million

*mg/m³ = Milligrams Per Cubic Metre

SECTION III PHYSICAL DATA			
Physical State:	Solid	PH:	N/A
Boiling Point: (⁰C)	N/A	Specific Gravity(H₂O =1):	7-8
Melting Point: (⁰C)	1500	% Volatile by Volume:	N/A
Vapour Pressure: (mmHg)	N/A	Evaporation Rate:	N/A
Vapour Density: (Air =1)	N/A	Appearance & Odour:	Grey to Black No odour
Solubility in H₂O:	insoluble	Coefficient Water/Oil Distribution	

SECTION IV FIRE AND EXPLOSION HAZARD DATA					
Flammable:	YES:		NO:	X	Flash Point: (⁰C) Closed Cup: N/A
Flammable Limits:	LEL:	N/A	UEL:	N/A	
Extinguishing Media:	N/A				
Susceptibility to Mechanical Impact: or Static Discharge:			N/A		
Fire Fighting Procedures:			N/A		

SECTION V REACTIVITY DATA	
Stability:	Stable
Incompatible Materials:	Mineral acid contact may release Hydrogen gas.
Decomposition Products:	Oxides of carbon, metal oxide fume.

SECTION VI TOXICOLOGICAL INFORMATION	
Acute Effects:	
Steel products as supplied do not pose inhalation, ingestion or contact hazards. Operations such as welding, burning, brazing, cutting, grinding, etc may result in generation of decomposition products which may cause irritation to the eyes, nose, and throat. Metal fume may cause flue-like symptoms, headache, chills, dizziness or nausea.	
Chronic Effects:	
Prolonged or repeated overexposure to dust or fume may cause chronic obstructive pulmonary disease, (Siderosis). Certain chrome and nickel compounds are listed by I.A.R.C. and the A.C.G.I.H. as lung or skin carcinogens. Steel anti-corrosion compounds may cause irritation or dermatitis with repeated or prolonged contact.	



SECTION VII FIRST AID MEASURES	
Inhalation:	Remove to fresh air, seek medical attention if irritation persists.
Skin Contact:	Wash effected area with soap and water, launder contaminated clothing.
Eye Contact:	Flush with clean water for 15 minutes, seek medial attention if irritation persists.
Ingestion:	Seek medical attention is irritation persists.

SECTION VIII PREVENTIVE MEASURES	
Respiratory Protection:	Use NIOSH approved respiratory protection for fume or dust hazards.
Protective Gloves/Clothing:	Use impervious gloves for corrosion coated steel or work gloves.
Eye Protection:	Use safety glasses or specific protection appropriate for the process.
Ventilation:	Use with adequate ventilation to prevent over exposure to decomposition products.
Spill Cleanup:	Place in appropriate container for re-use.
Waste Disposal:	Dispose of waste per applicable environmental legislation.
Handling/Storage:	No special requirements.

SECTION IX SPECIAL PRECAUTIONS
Avoid inhalation of combustion products during welding, burning or brazing.

SECTION X PREPARATION INFORMATION	
Prepared by: ESSAR Steel Algoma Inc. Occupational Health and Safety Department	MSDS Inquiries Phone: (705) 945-4058

NA = Not available
N/A = Not applicable