



MATERIAL SAFETY DATA SHEET

1. PRODUCT INFORMATION

Product Identifier: Plates and Coil

Manufacturer: IPSCO Steel Inc.

1770 Bill Sharp Boulevard
Muscogee, LA 52761

Emergency Phone# (319)381-3300

After Hours: (319)381-3545

2. REGULATED COMPONENTS

Element	CAS Registry #	TLV(ACGIH) LD50/LC50	Toxicity	Max. %
Iron	7439-89-6	5.0mg/m ³	Not Available	99.8
Manganese	7439-96-5	1.0mg/m ³ (fume) 5.0mg/m ³ (dust)	9g/kg(oral rat LD50)	2.2
Chromium	7440-47-3	0.5mg/m ³ (metal) 0.05mg/m ³ (VI)	Not Available	1.2
Nickel	7440-02-0	1.0mg/m ³	Not Available	1.0
Molybdenum	7439-98-7	5.0mg/m ³	Not Available	1.0
Carbon	7440-44-0	3.5mg/m ³	Not Available	1.0
Copper	7440-50-8	0.2mg/m ³ (fume) 1.0mg/m ³ (dust)	Not Available	1.0
Silicon	7440-21-3	10mg/m ³	Not Available	1.0

ADDITIONAL COMPONENTS

Element	CAS Registry #	TLV(ACGIH)	Max. %
Vanadium	7440-62-2	0.05mg/m ³	0.3
Niobium	Not Available	Not Available	0.2
Aluminum	7429-90-5	10mg/m ³	0.1
Tin	Not Available	Not Available	0.1
Titanium	7440-32-6	Not Available	0.1
Sulfur	7704-34-9	Not Available	0.05
Phosphorus	7723-14-0	0.1mg/m ³	0.05
Boron	7440-42-8	Not Available	0.01

Note: Element weight percents shown represent maximum concentrations possible over all product ranges. These do not represent actual steel specification limits for any IPSCO steel grade produced.

Chapel

3. PHYSICAL DATA

Physical State: Solid	
Odor and Appearance: Odorless/Gray-black in color	
Odor Threshold: Not Applicable	
Specific Gravity: 2.75-2.82 lb/in ³	Vapor Pressure: Not Applicable
Vapor Density: Not Applicable	Evaporation Rate: Not Applicable
Boiling Point: 5252 F (approx.)	Melting Point: 2786 F (approx.)
pH: Not Applicable	Coeff. of Water/Oil Dist: Not Applicable

4. FIRE OR EXPLOSION HAZARD DATA

Flammability: Nonflammable	Flash Point: Not Applicable
Means of Extinction: Not Applicable	Auto Ignition Temp.: Not Applicable
LFL: Not Applicable	UFL: Not Applicable
Hazardous Combustion Products: Not Applicable	
Sensitivity to Mech. Impact: Nil	
Sensitivity to Static Discharge: Nil	

5. REACTIVITY DATA

Steel is stable under normal conditions. May react with strong acids to form hydrogen gas.

6. TOXICOLOGICAL PROPERTIES

Steel in its natural state is not toxic. Process operations such as welding or cutting may produce dust or fumes which are harmful when inhaled.

Acute Exposure: headaches,	Overexposure to fumes may produce flu-like symptoms such as chills, nausea, and diarrhea. Dust may cause irritation of the eyes, nose, and throat.
Chronic Exposure:	Prolonged inhalation exposure to iron oxide dust or fumes may result in a pulmonary condition known as siderosis. Some nickel and chromium compounds are listed as nasal and lung carcinogens by IARC and ACGIH.

7. FIRST AID MEASURES

Remove to fresh air. Seek medical aid if necessary.

8. PREVENTATIVE AID MEASURES

Adequate ventilation and/or use of NIOSH approved mask for respiratory protection is recommended during operations which generate metal dust or fumes.

Protective equipment (eg. gloves or safety glasses) should be used as needed to prevent physical injury when handling or processing steel.

9. PREPARATION INFORMATION

MSDS Prepared by IPSCO Steel Inc., Joe Wusteliman, Safety Director.

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