

# Material Safety Data Sheet

## HOT ROLLED COILED STEEL and MILL SCALE

### SECTION 1: MANUFACTURER'S INFORMATION

A. Manufacturer's Name: North Star BHP Steel LLC  
B. Address: 6767 County Rd. 9 C. Emergency Telephone No. 419-367-1169  
D. City, State, and Zip: Delta, Ohio 43515 E. Business Hours Telephone No. 419-822-2200  
F. Date of preparation: August 11, 2003 G. Prepared by: Satara C. Taylor, EHS Manager  
H. Revision Number: 4.0

### SECTION 2: HAZARDOUS INGREDIENTS

<u>CHEMICAL</u>	<u>SYMBOL</u>	<u>C.A.S. NO.</u>	<u>MAX. %</u>	<u>ACGIH TLV</u>
Aluminum	(Al)	7429-90-5	0.08	fume 5 mg/M3
Antimony	(Sb)	7440-36-0	0.03	0.5mg/M3
Arsenic	(As)	7440-38-2	0.02	0.01mg/M3
Carbon	(C)	7440-44-0	0.9	fume 55 mg/M3
Chromium	(Cr)	7440-47-3	0.3	0.5 mg/M3*
Cobalt	(Co)	7440-48-4	0.03	fume 0.1
Copper	(Cu)	7440-50-8	1.0	fume 0.1 mg/M3**
Iron	(Fe)	7439-89-6	99.0	fume 5.0 .g/M3
Lead	(Pb)	7439-92-1	0.02	fume .05 mg/M3**
Manganese	(Mn)	7439-96-5	1.7	fume 1 mg/M3
Magnesium	(Mg)	7439-95-4	0.01	fume 10mg/M3
Molybdenum	(Mo)	7439-98-7	0.3	5 mg/M3
Nickel	(Ni)	7440-02-0	0.3	1 mg/M3*
Phosphorous	(P)	7723-14-0	0.1	0.1 mg/M3
Silicon	(Si)	7440-21-3	0.8	5 mg/M3**
Sulfur	(S)	7446-09-5	0.04	fume as SO <sub>2</sub> , 5.0 mg/M3
Tin	(Sn)	7440-31-5	0.06	fume 2 mg/M3
Titanium	(Ti)	13463-67-7	0.10	fume 10 mg/M3
Vanadium	(V)	7440-62-2	0.2	fume as P <sub>2</sub> O <sub>5</sub> , 0.05 mg/M3
Zinc	(Zn)	7440-66-6	0.03	fume 5mg/M3

\*Recognized to have human carcinogenic potential.

\*\*OSHA PEL Referenced.

### SECTION 3: PHYSICAL AND CHEMICAL CHARACTERISTICS

A. Boiling Point: 4982° F B. Specific Gravity (water = 1): 8 C. Vapor Pressure: N/A  
D. Solubility in Water: N/A E. Reactivity in water: N/A F. Vapor Density (Air = 1): N/A  
G. Appearance and Odor: Odorless solid w/metallic luster H. Melting Point: 2750° F

### SECTION 4: FIRE & EXPLOSION DATA

A. Flash Point: N/A B. Flammable Limits in Air & by Volume: N/A  
C. Auto-Ignition Temperature: N/A D. Extinguisher Media: N/A  
E. Special Fire Fighting Procedures: N/A F. Unusual Fire & Explosion Hazard: N/A

## **SECTION 5: PHYSICAL HAZARDS (REACTIVITY DATA)**

- A. Stability: ¼ Unstable       Stable
- B. Incompatibility or Materials to Avoid: Strong acids or caustics may produce Hydrogen gas.
- C. Hazardous Decomposition Products: Metal fumes and certain toxic gases, such as carbon monoxide may be generated during welding, burning and/or grinding operations.
- D. Hazardous Polymerization ¼ May Occur       Will not Occur

## **SECTION 6: HEALTH HAZARDS:**

- A. Acute: See below    B. Chronic: See below
- C. Signs & Symptoms of Exposure: No toxic effects would be expected from inert, solid form. Prolonged, repeated exposure to fumes or dusts generated during heating, cutting, or welding may cause dizziness, headache and nausea.
- D. Chemical Listed as Carcinogen or Potential Carcinogen: See section 2.0 Hazardous Ingredients
- E. Emergency & First Aid Procedures: In case of over exposure, immediately move person from contaminated area to fresh air. Give artificial respiration if breathing has stopped and seek medical assistance.
  - 1. Inhalation: Most common route of entry; occurs during welding, grinding, burning and similar operations that liberate dust / fume into the air
  - 2. Eyes: Airborne dust and/or fumes can cause exposure.
  - 3. Skin: Scrapes / cuts - skin absorption unlikely
  - 4. Ingestion: Unlikely
- F. Routes of Entry

## **SECTION 7: SPECIAL PRECAUTIONS AND SPILL / LEAK PROCEDURES**

- A. Precautions to be taken in handling and storage: None.
- B. Steps to be taken in case material is released or spilled: Clean up and dispose of in compliance with section 7.C. recycle with local scrap dealer.
- C. Waste Disposal Methods: Recycle with local scrap dealer in compliance with federal, state, and local regulations.

## **SECTION 8: SPECIAL PROTECTION INFORMATION / CONTROL MEASURES**

- A. Respiratory Protection: A properly fitted, NIOSH approved fume and dust respirator.
- B. Ventilation: Use local exhaust to meet ACGIH TLV or OSHA PEL for hazardous ingredients.
- C. Protective Gloves: Use for scrape and cut protection
- D. Eye / Face Protection: Use NIOSH approved eye and face protection when burning, cutting, welding, grinding, etc.
- E. Foot Protection: Steel toed, metatarsal protective boots are recommended.
- F. Other Protective Clothing or Equipment: Use a NIOSH approved face shield when grinding.
- G. Work Hygienic Practices: Wash hands before meals or smoking.