SLATER STEELS

FORT WAYNE SPECIALTY ALLOYS DIVISION
A DIVISION OF SLATER INDUSTRIES INC.
2400 TAYLOR ST. W. P.O. BOX 630, FORT WAYNE, INDIANA, U.S.A. 46801

NOTE CAS. # IS INDICATED - IF INGREDIENT IS SUBJECT TO EPA SARA, TITLE III, SECTION 313, REPORTING REQUIREMENTS.

MC WILLIAMS FORGE CO INC
FRANKLIN ROAD
ROCKAWAY, NJ

07866

MATERIAL SAFETY DATA SHEET

DATE May, 1995

SECTION I

MANUFACTURER'S NAME SLATER STEELS CORP., FORT WAYNE SPECIALTY ALLOYS DIVISION

ADDRESS 2400 TAYLOR STREET, WEST EMERGENCY TELEPHONE 1-800-348-1761

CITY, STATE, ZIP FORT WAYNE, INDIANA 46804

PRODUCT CLASS PRIMARY STEEL MANUFACTURER'S CODE IDENTIFICATION SIC-33

TRADE NAME All Steel Alloy Grades STEEL, ALLOY All grades

SECTION II — HAZARDOUS INGREDIENTS

INGREDIENT		TYPICAL PERCENT	OSHA PEL mg/m³	ACGIH TLV mg/m³
Iron		2.50 to 98.84	10.0	5.0
Carbon		.015 to 1.48	3.5	3.5
Manganese	7439-96-5	.06 to 12.0	1.0	5.0 (1.0 fume)
Silicon		.01 to 3.3	10.0	10.0
Chromium	7440-47-3	.2 to 25	.5	.5
Nickel	7440-02-0	.2 to 78	1.0	1.0
Molybdenum	1313-27-5	.06 to 8.75	10.0	10.0
Copper	7440-50-8	.2 to 31.5	.1 (1.0 Dust)	.2 (1.0 Dust)
Cobalt	7440-48-4	= < 3	.05	.05
Titanium		=< 2.20	10.0	10.0
Columbium		=< 3.5	N/A	N/A
Tungsten		=< 3.0	5.0	5.0
Vanadium	7440-62-2	=< 1.4	.05	.05

To obtain a MSDS for a specific grade, please call 219-434-2851

SECTION III — PHYSICAL DATA

BOILING RANGE [NA] VAPOR DENSITY: [NA] HEAVIER [NA] LIGHTER THAN AIR

EVAPORATION RATE: [NA] FASTER [NA] SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME NA

WEIGHT PER GALLON NA

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY NA FLASH POINT NA LEL NA

EXTINGUISHING MEDIA NA

UNUSUAL FIRE AND EXPLOSION HAZARDS NA

SPECIAL FIRE FIGHTING PROCEDURES NA

SECTION V — HEALTH HAZARD DATA

THIS PRODUCT, IN ITS PRESENT STATE, DOES **NOT** PRESENT ANY PHYSICAL OR HEALTH HAZARDS. VARIOUS PROCESSES ON THIS PRODUCT, SUCH AS GRINDING, WELDING, FORGING, AND MACHINING, MAY PRODUCE DUSTS, FUMES, ETC.

Primary Route of Entry

Inhalation	Skin Contact	Eye Contact	Ingestion
X			

These dusts or fumes may contain chromium, nickel and copper, as well as other elements. High exposures may produce respiratory disease and/or eye irritation. The permissible exposure levels (PEL) and threshold limit values (TLV) for each of the components of this product are listed on the reverse side. If the levels or values on any of the components are expected to be exceeded during a manufacturing process, the use of an approved respirator is recommended, if ventilation is not possible.

If the exposures are all below each of the (PEL)'s and (TLV)'s, manufacturing processes should not present any health risk.

Emergency and first aid procedures are N/A for this product in its present state. For overexposure to dust, fumes, etc., remove person to fresh air. If there are breathing problems, administer artificial respiration and seek medical attention.

Certain components, such as chromium and nickel compounds, have been listed in the recent reports on carcinogens in the National Toxicology Program (NTP) and are listed as human carcinogens by the International Agency for Research on Cancer (IARC).

SYMPTOMS OF OVEREXPOSURE:

ACUTE: Inhalation of high concentrations of iron oxide fumes or dusts may lead to a benign pneumoconiosis (siderosis). Inhalation of high concentrations of iron oxides may also possibly enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens. The inhalation of high concentrations of freshly formed oxide fumes and dusts of Manganese, Copper, Lead and/or Zinc in the respirable particle size range can cause an influenza-like illness termed metal fume fever. Typical symptoms last 12 to 48 hours and are characterized by metallic taste in the mouth, dryness and irritation of the throat, followed by weakness, muscle pain, fever and chills.

CHRONIC: Excessive and repeated overexposure of nickel and chromium can cause various forms of dermatitis, inflamation and/or ulceration of upper respiratory tract. Both chromium and nickel have been associated with upper respiratory cancer. Excessive and repeated overexposure of iron fumes can cause siderosis. Excessive and prolonged inhalation of manganese fumes can cause bronchitis, pheumonitis, lack of coordination.

SECTION VI — REACTIVITY DATA

STABILITY: ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID

INCOMPATABILITY (MATERIALS TO AVOID) **NA**

HAZARDOUS DECOMPOSITION PRODUCTS **NA**

HAZARDOUS POLYMERIZATION: ☐ MAY OCCUR ☒ WILL NOT OCCUR

SECTION VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED **NA**

WASTE DISPOSAL METHOD FOR DISPOSAL OF THIS MATERIAL AS A WASTE, ACT IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL WASTE MANAGEMENT REGULATIONS.

SECTION VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION **IF** PEL'S and TLV'S are exceeded, use approved NIOSH respirator.

VENTILATION **LOCAL EXHAUST IF** PEL's and TLV's exceeded.

PROTECTIVE GLOVES **NONE**

EYE PROTECTION **EYE GLASSES OR GOGGLES, AS NEEDED.**

OTHER PROTECTIVE EQUIPMENT **NONE**

SECTION IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING **NA**