

Heckmann Building Products Inc.
1501 N. 31st Avenue
Melrose Park, IL 60160-2911
708-865-2403

MATERIAL SAFETY DATA SHEET

PLAIN STEEL, MILL GALVANIZED STEEL, HOTDIP GALVANIZED AFTER FABRICATION, ELECTRO GALV. (Carbon, Alloy Steels) revised June 30, 2000

I. PRODUCT INFORMATION

Company: Heckmann Building Products Inc.,
 1501 N. 31st Avenue
 Melrose Park, IL 60160 708-865-2403

Trade Name: Plain Steel, Mill Galvanized Steel.

Chemical Name: Steel

Form: Masonry Anchors & Ties, Flashings, Rounds, Steel Building Anchors.

II. PRODUCT INGREDIENTS

MATERIAL TLV(mg/3m)	CAS NUMBER	% WEIGHT	Exposure Limits	
			OSHA PEL (mg/m3)	ACGIH
Base Metal Iron (Fe)	7439-89-6	Balance	10 (Fe,o,Fume)	5.0 (Fe,O,Fume)
Alloying Elements				
Carbon (C)	7440-44-0	0.01-1.5	None Listed	None Listed
Chromium (Cr)	7440-47-3	0.01-12	1.0 as chrome	0.5 as chrome
Copper (Cu)	7440-50-8	0.04-0.7	0.2 as copper	0.2 as fume
			1.0 as dust	1.0 as dust
Lead (Pb)	7439-92-1	0.15-0.35	0.05 as fume	0.15 as dust & fume
Manganese (Mn)	7439-96-5	0.05-2.0	5 as manganese	5 as dust 1 as fume
Molybdenum (Mo)	7439-98-7	0.01-1.10	15 as insoluble	10 as insoluble comp.
Nickel (Ni)	7440-02-0	0.01-10	1.0 as Nickel	1.0 as Nickel
Phosphorous (P)	7723-14-0	0.15 Max	0.1 as Phos	0.1 as Phosphorous
Silicon (Si)	7440-21-3	0.15-2.2	None Listed	10 total dust
Sulphur (S)	7704-34-09	0.001-0.35	13 sulfur dioxide	5 sulfur dioxide
Tungsten (W)	7440-33-7	0.0-18	None Listed	5 insoluble compounds
Vanadium (V)	7440-62-2	0.01-1.0	0.5 as dust	0.05 dust and fume
Zinc (Zn) Coating	1314-13-2	10 Max	5.0 as fume	5.0 as fume

Note: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

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III. PHYSICAL DATA

PHYSICAL FORM: Solid under normal conditions. BOILING POINT: Not applicable.
APPEARANCE & ODOR: Grey-Black with Metallic Luster Odorless. VAPOR PRESSURE: Not applicable.

SPECIFIC GRAVITY (H₂O = 1): 7 VAPOR DENSITY: Not applicable.

MELTING POINT: 2750 degrees F ACIDITY/ALKALINITY: Not applicable.

SOLUBILITY IN WATER % by weight: Not applicable.

% VOLATILE BY VOLUME: Not applicable.

IV. PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: NIOSH approved dust/mist/fume respirator should be used during welding or burning if OSHA PEL or TLV is exceeded.

HANDS, ARMS, BODY: Use appropriate protective clothing such as welders aprons & gloves when welding or burning. Check local codes.

EYES & FACE: Safety glasses should always be worn when grinding or cutting: face shields should be worn when welding or burning.

OTHER CLOTHING AND EQUIPMENT: As required. (Makes sense, doesn't it!)

V. EMERGENCY MEDICAL PROCEDURES

INHALATION: Remove to fresh air; if condition continues, consult physician.

EYE CONTACT: Immediately flush well with running water to remove particulate; get medical attention.

SKIN CONTACT: If irritation develops, remove clothing and wash well with soap and water. If condition persists, seek medical attention.

INGESTION: If significant amounts of metal are ingested, consult physician.

VI. HEALTH & SAFETY INFORMATION

Steel products in the natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which results in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates may present hazards. The above operations

should be performed in well ventilated areas. The major exposure hazard is inhalation.

Acute: Excessive inhalation of metallic fumes and dusts may result in irritation of eyes, nose and throat. Also high concentrations of fumes and dusts of iron-oxide, manganese, copper, zinc, and lead may result in the dreaded metal fume fever.

Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chills and fever, and usually last from 12 to 48 hours.

Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element:

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IRON: Pulmonary effects, siderosis.

MANGANESE: Bronchitis, pneumonitis, lack of coordination.

CHROMIUM: Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract, and possible cancer of nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancer.

NICKEL: Same as Chromium.

COPPER: Pulmonary effects.

VANADIUM: No reported cases of exposure to vanadium.

MOLYBDENUM: Pain in the joints, hands, knees, and feet.

TUNGSTEN: Some evidence of pulmonary involvement such as cough.

LEAD: Prolonged exposures can cause behavioral changes, kidney damage, periphery neuropathy characterized by decreased hand-grip strength and adverse reproductive effects.

ZINC: None reported.

VII. FIRE AND EXPLOSION

FLASH POINT: Not Applicable.

AUTO IGNITION TEMPERATURE: Not Applicable.

LIMITS IN AIR: Not Applicable.

FIRE AND EXPLOSION HAZARDS: None

EXTINGUISHING MEDIA NOT TO BE USED: None.

VIII. REACTIVITY

Material is stable under normal conditions.

INCOMPATIBILITY: Reacts with strong acids to form hydrogen gas.

Conditions to avoid: Keep area well ventilated when cutting, welding, burning, or brazing. Avoid generation of airborne dusts and fumes.

HAZARDOUS DECOMPOSITION PRODUCTS: Metallic oxides.

IX. ENVIRONMENTAL

Spill or leak procedures: Not applicable. Special Precautions: Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum. Waste Disposal Method: Dust, etc - follow federal, state, and local regulations regarding disposal.

X. DISCLAIMER

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