

HotRolled

**MATERIAL SAFETY DATA SHEET**

MANUFACTURER'S NAME: MARION STEEL COMPANY  
ADDRESS: 912 CHENEY AVENUE  
MARION, OHIO 43302

PREPARED: 12/1/94  
ISSUED: 1/1/97

INFORMATION AND EMERGENCY TELEPHONE NUMBER: (614) 383-4011

SECTION I -- PRODUCT INFORMATION

PRODUCT NAME: ASTM - A36, A615  
PRODUCT TRADE NAME: Hot Rolled Carbon Steel

SECTION II -- HAZARDOUS INGREDIENTS

INGREDIENTS	(CAS. NUMBER)	PERCENT BY VOLUME	OCCUPATIONAL EXPOSURE LIMITS	
			TLV	PEL
Base Metal-Iron	NA	97 - 99%	10 mg/m <sup>3</sup>	NA
Carbon	NA	.10 - .90%	NA	NA
**Manganese	7439-96-5	10 - 1.50%	5 MG/M <sup>3</sup>	NA
**Phosphorous	7723-14-0	.060% Max.	NA	NA
Sulfur	NA	.001 - .060%	13 mg/m <sup>3</sup>	NA
Silicon	NA	.35% Max.	NA	NA
Aluminum	NA	.001 - .015%	NA	NA

\*\* DESIGNATES MATERIAL SUBJECT TO REPORTING REQUIREMENTS OF SARA TITLE III, SEC. 313. IF NONE DESIGNATED, THIS PRODUCT CONTAINS NO REPORTABLE CHEMICALS.

SECTION III -- PHYSICAL DATA

BOILING POINT: NA SOLUBILITY IN WATER: NA  
VAPOR PRESSURE: NA SPECIFIC GRAVITY: 7.6 - 7.8  
VAPOR DENSITY: NA PERCENT VOLATILE: NA  
APPEARANCE: Gray Metallic EVAPORATION RATE: NA  
ODOR: Odorless

SECTION IV -- FIRE & EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): NA NFPA FIRE RATING: NA  
FLAMMABLE LIMITS NA HEALTH -  
LEL - FLAMMABILITY -  
UEL - REACTIVITY -

EXTINGUISHING MEDIA: NA  
SPECIAL FIRE FIGHTING PROCEDURES: NA  
UNUSUAL FIRE AND EXPLOSION HAZARDS: NA

SECTION V -- HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:	NA
PERMISSIBLE EXPOSURE LIMIT:	NA
OUTES OF ENTRY:	NA

Steel products in natural state present to hazard. Other operations such as grinding, welding, burning, etc., may result in inhalation exposure limits in Section II.

EFFECTS OF OVER EXPOSURE:	Can cause irritation to eyes, nose and throat.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	May aggravate chronic diseases or disorders of the respiratory system.
EMERGENCY AND FIRST AID PROCEDURES:	Remove from excessive exposure levels unless proper respiratory protection is worn. Seek medical attention promptly if irritation continues.
CARCINOGENIC ASSESSMENT:	NA

SECTION VI -- REACTIVITY DATA

STABILITY:	Stable
INCOMPATIBILITY (MATERIALS TO AVOID):	Acids
HAZARDOUS DECOMPOSITION PRODUCTS:	Fumes and/or gases produced from welding or burning operations.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION VII -- SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:	Not applicable to steel in a solid state.
WASTE DISPOSAL METHOD:	Any excess or scrap metal is recycled.

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SECTION VIII -- SPECIAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY): NIOSH approved fume or dust respirators.

VENTILATION: *Local Exhaust*, Recommended when welding or cutting.  
*Mechanical*, Sufficient to keep below limits.  
*Special*, None.

PROTECTIVE GLOVES: Welder's protective gloves.

EYE PROTECTION: Face Shield or goggles.

OTHER PROTECTIVE EQUIPMENT: Fire retardant clothing when burning or welding.

SECTION IX -- SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN FOR HANDLING AND STORAGE: NA

OTHER PRECAUTIONS: 1) See American National Standard Safety in Welding and Cutting.  
2) For sign post, refer to the MSDS forms for paint coatings.