



16100 S. Lathrop Ave.  
Harvey, IL 60426

OFFICE / 708-339-1610  
FAX / 708-339-2399  
WEB / atkore.com

March 10, 2011

Dear Valued Customer:

Enclosed are the Material Safety Data Sheet (MSDS) for the steel products purchased from Allied Tube & Conduit Corporation.

Allied Tube is providing an MSDS in compliance with Section 313 of the Title III of the Superfund Amendments and Reauthorization Act of 1986.

If you would like additional copies, please visit us online at [www.atc-mechanical.com](http://www.atc-mechanical.com) and browse our section of Literature and Technical Specifications.

Questions or comments may be directed to your Allied Tube sales representative.

Best Regards,

Dan Kuzniewski



Columbia-MBF



KAF-TECH



UNISTRUT

COPE



UNISTRUT Construction





# MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: ASTM A500 Gr C

FILE NO.: M500C1  
MSDS DATE: 02 /02/10

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ASTM A500 Gr C Structural Tube & Pipe  
**PRODUCT CODES:** HSO, HSS, HSR

**MANUFACTURER:** Allied Tube & Conduit  
**DIVISION:** Tyco Electrical & Metal Products  
**ADDRESS:** 600 Dean Sievers Place, Morrisville PA 19067 USA

**EMERGENCY PHONE:** 215-295-8813  
**FAX PHONE:** 215-295-8798

**CHEMICAL NAME:** Iron and Various Alloys

**PRODUCT USE:** A product specifically designed for construction and structural applications. Produced to tighter tolerances (O.D., wall, straightness). Superior surface finish (bare-no mill laquer coating applied). Higher strength to weight ratio. Broad variety of O.D. sizes and gauges.

## SECTION 2: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENT (Common Name):	CAS No.	OSHA PEL (mg/m <sup>3</sup> )	ACGIH TLV (mg/m <sup>3</sup> )	Other limits	Max % level (Optional)
Iron (as Iron Oxide Fume)	1309-37-1	10.0	5.0	N/A	97.0
Carbon (As CO <sub>2</sub> )	124-38-9	9000.0	9000.0	N/A	.23
Manganese	7439-96-5	5.0	5.0	N/A	1.35
Phosphorous (yellow)	7723-14-0	.1	.1	N/A	0.035
Sulfur (As Sulfur Dioxide)	7446-09-5	5.0	2.0	N/A	0.035
Copper	7440-50-8	0.1	0.2	N/A	0.20
Nickel	7440-02-0	0.1	0.05	N/A	-

## SECTION 3: HAZARDS IDENTIFICATION

**OVERVIEW:** Steel products in the solid state do not present any known health hazards. However, some users' processes such as welding, burning, sawing, grinding, or cutting may produce fume or dusts. Health hazard data is given for fume or dusts.

**ACUTE HEALTH HAZARDS:** Irritation of the eyes, nose, throat and lungs. Contact dermatitis. Metal fume fever or flu-like symptoms

**CHRONIC HEALTH HAZARDS:** Bronchitis, pneumonitis, siderosis, inflammation of upper respiratory tract, headaches, lack of coordination, and acute metal fume fever

**MAJOR EXPOSURE HAZARD:** Inhalation

## SECTION 4: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Gray Solid/Odorless  
**Solubility in H<sub>2</sub>O:** N/A  
**Physical State:** Solid  
**Melting Pt:** 2600-2800 degrees  
**Boiling Point:** N/A

**Percent Volatiles:** N/A  
**Evaporation Rate:** N/A  
**Vapor Density:** N/A  
**Specific Gravity:** 7  
**Vapor Pressure:** N/A



# MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: ASTM A53 Gr B Type E

FILE NO.: M53B1  
MSDS DATE: 02 /02/10

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ASTM A53 Gr B Type E  
PRODUCT CODES: SPOL, SPOU

MANUFACTURER: Allied Tube & Conduit  
DIVISION: Tyco Electrical & Metal Products  
ADDRESS: 600 Dean Sievers Place, Morrisville PA 19067 USA

EMERGENCY PHONE: 215-295-8813  
FAX PHONE: 215-295-8798

CHEMICAL NAME: Iron and Various Alloys

PRODUCT USE: A product specifically designed for mechanical and pressure applications and is also acceptable for ordinary uses in steam, water, gas and air lines.

## SECTION 2: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENT (Common Name):	CAS No.	OSHA PEL (mg/m <sup>3</sup> )	ACGIH TLV (mg/m <sup>3</sup> )	Other limits	Max % level (Optional)
Iron (as Iron Oxide Fume)	1309-37-1	10.0	5.0	N/A	97.0
Carbon (As CO <sub>2</sub> )	124-38-9	9000.0	9000.0	N/A	.30
Manganese	7439-96-5	5.0	5.0	N/A	1.20
Phosphorous (yellow)	7723-14-0	.1	.1	N/A	0.05
Sulfur (As Sulfur Dioxide)	7446-09-5	5.0	2.0	N/A	0.045
Copper	7440-50-8	0.1	0.2	N/A	0.50
Nickel	7440-02-0	0.1	0.05	N/A	0.40

## SECTION 3: HAZARDS IDENTIFICATION

OVERVIEW: Steel products in the solid state do not present any known health hazards. However, some users' processes such as welding, burning, sawing, grinding, or cutting may produce fume or dusts. Health hazard data is given for fume or dusts.

ACUTE HEALTH HAZARDS: Irritation of the eyes, nose, throat and lungs. Contact dermatitis. Metal fume fever or flu-like symptoms

CHRONIC HEALTH HAZARDS: Bronchitis, pneumonitis, siderosis, inflammation of upper respiratory tract, headaches, lack of coordination, and acute metal fume fever

MAJOR EXPOSURE HAZARD: Inhalation

## SECTION 4: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Gray Solid/Odorless  
Solubility in H<sub>2</sub>O: N/A  
Physical State: Solid  
Melting Pt: 2600-2800 degrees  
Boiling Point: N/A

Percent Volatiles: N/A  
Evaporation Rate: N/A  
Vapor Density: N/A  
Specific Gravity: 7.85  
Vapor Pressure: N/A

**MATERIAL SAFETY DATA SHEET  
STEEL PRODUCTS**

Code No. N/A  
Original Issue Date: 1/11/02 Revised: \_\_\_\_\_

<b>I. IDENTIFICATION</b>		INFORMATION AND EMERGENCY TELEPHONE NUMBERS (708) 339-1610	
PRODUCT NAME: Mechanical Product Raw – Carbon Steel Painted		<b>MANUFACTURER:</b> <b>Allied Tube &amp; Conduit Corp.</b> 16100 South Lathrop Avenue Harvey, IL 60426	
COMMON NAME(S): MECHANICAL			
<b>II. INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS</b>			
NOTE: Steel products under normal conditions do not present an inhalation, ingestion or contact health hazard (See Section VI).			
BASE METAL ALLOYING ELEMENTS AND METALLIC COATINGS	% WEIGHT	EXPOSURE LIMITS	
		OSHA PEL	ACGIH TLV (1992-1993)
Base Metal: Iron	98.8	15 mg/M <sup>3</sup> for total particulate as iron oxide total dust  5 mg/M <sup>3</sup> for total particulate respirable fraction	5 mg/M <sup>3</sup> for iron oxide fumes
Alloying Elements: Carbon	0.25 max.	None Established	None Established
Manganese	0.95 max.	(c) 5 mg/M <sup>3</sup> – compounds (b) 3 mg/M <sup>3</sup> – fume 1 mg/M <sup>3</sup> - fume	5 mg/M <sup>3</sup> – dust & compounds 1 mg/M <sup>3</sup> – fume (b) 3 mg/M <sup>3</sup> - fume
Phosphorus	0.035 max.	None for inorganic phosphates	None for inorganic phosphates
Sulfur	0.035 max.	5 mg/M <sup>3</sup> as sulfur dioxide (b) 10 mg/M <sup>3</sup> as sulfur dioxide	5.2 mg/M <sup>3</sup> as sulfur dioxide (b) 13 mg/M <sup>3</sup> as sulfur dioxide
Polymeric O.D. Coatings	< 0.50	n/a	n/a
Polymeric I.D. coatings	0.1 max.	n/a	n/a
<p>(b) denotes short term exposure limit (STEL).            (c) Denotes "ceiling limit" which is not to be exceeded at any time.            * Subject to Section EPCRA 313 reporting.</p>			
NOTE: These products contain trace quantities of various elements but not at reportable levels under the OSHA Hazard Communication Standard Limit (29 CFR 1910.1200)			
<b>III. PHYSICAL DATA</b>			
Melting Point Base Metal: @ 2750°		Metallic Coating: N/A	
Appearance: Black		Odor: No Odor	
<b>IV. FIRE AND EXPLOSION HAZARD DATA</b>			
Steel products sold in the solid state present no fire or explosion hazard.			
<b>V. REACTIVITY DATA</b>			
Stable under normal conditions of use, storage and transport. Will react with strong acid to liberate hydrogen.			

## VI. HEALTH HAZARD DATA

NOTE: Steel products under normal conditions do not present an inhalation, ingestion, or contact health hazard. However, operations such as burning, welding, sawing, brazing, grinding, and possibly machining, etc. which may result in elevating the temperatures of the product to or above its melting point or result in the generation of airborne particulates, may present health hazards.

### EFFECTS OF OVEREXPOSURE

Major Exposure Hazard			
INHALATION	SKIN CONTACT	EYE CONTACT	INGESTION
X			

Chronic inhalation of high concentrations of iron oxide fumes or dusts may lead to a benign pneumoconiosis (siderosis). Inhalation of high concentrations of ferric oxide may 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, and chills. No long term effects of metal fume fever have been noticed.

### EMERGENCY AND FIRST AID PROCEDURES

For exposure to airborne fumes and particulates, remove exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated. Seek medical attention promptly.

Treat metal fume fever by bed rest, and administer a pain and fever reducing medication.

## VII. SPILL OR LEAK PROCEDURES

NOT APPLICABLE TO STEEL IN THE SOLID STATE

## VIII. SPECIAL PROTECTION INFORMATION

**RESPIRATORY:** For welding or burning – NIOSH/MSHA – approved dust and fume respirators should be used to avoid excessive inhalation of particulates. Appropriate respirator selection depends on the magnitude of the exposure.

**SKIN:** Protective gloves should be worn as required for welding, burning or handling operations.

**EYE:** Use safety glasses or goggles as required for welding, burning or handling operations.

**VENTILATION:** Local exhaust ventilation should be provided when sawing, grinding or machining to prevent excessive dust or fume exposure. During welding, burning or brazing please follow the ANSI Standard Z49.1 "Safety in Welding and Cutting".

**OTHER PROTECTIVE EQUIPMENT:** Depending upon the conditions of use and specific work situations, additional protective equipment and/or clothing may be required to control exposures.

## IX. SPECIAL PRECAUTIONS

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Operations with the potential for generating high concentrations of airborne particulates should be evaluated and controlled as necessary. Avoid breathing metal fumes and/or dusts.

### OTHER COMMENTS:

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Individuals with chronic respiratory disorders (i.e., asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure.

THIS INFORMATION IS TAKEN FROM SOURCES OR BASED UPON DATA BELIEVED TO BE RELIABLE; HOWEVER ALLIED TUBE & CONDUIT CORPORATION MAKES NO WARRANTY AS TO THE ABSOLUTE CORRECTNESS OR SUFFICIENCY OF ANY OF THE FOREGOING OR THAT ADDITIONAL OR OTHER MEASURES MAY NOT BE REQUIRED UNDER PARTICULAR CONDITIONS.

# MATERIAL SAFETY DATA SHEET

## STEEL PRODUCTS

	CODE NO.: na	
ORIGINAL ISSUE DATE: 4/11/07	REVISED:	

<b>I. IDENTIFICATION</b> PRODUCT NAME: Galvanized Carbon Steel; Pipe, Tube & Open profile shapes.  COMMON NAME (S): EMT, COLORED EMT, IMC, RIGID, FENCE, MECHANICAL, ANGLE, CHANNEL	INFORMATION AND EMERGENCY TELEPHONE NUMBERS (708) 339-1610  <b>MANUFACTURER:</b> <b>Allied Tube &amp; Conduit Corp</b> 16100 South Lathrop Avenue Harvey, IL 60426
--	--

### II. INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS

Note: Steel Products under normal conditions do not present an inhalation, ingestion, or contact health hazard (See Section VI).

BASE METAL, ALLOYING ELEMENTS AND METALLIC COATINGS	% WEIGHT	EXPOSURE LIMITS*	
		During operations (such as welding, burning, or cutting) where dust or fumes are generated.	
		OSHA PEL	ACGIH TLV (1992-1993)
Base Metal: Iron CAS 7439-89-6	95.7 – 98.3	10 mg/M <sup>3</sup> for total particulate as iron oxide – total dust 5 mg/M <sup>3</sup> for total particulate-respirable fraction	5 mg/M <sup>3</sup> for iron oxide fumes
Alloying Elements: Carbon CAS 7440-44-0	0.25 max	10 mg/M <sup>3</sup> for total dust (pnor) <sup>d</sup> 5mg/M <sup>3</sup> for respirable fraction (pnor) <sup>d</sup>	10 mg/M <sup>3</sup> for total dust (pnos) <sup>e</sup> 3 mg/M <sup>3</sup> for respirable fraction (pnos) <sup>e</sup>
*Manganese CAS 7439-96-5	0.95 max	(c) 5 mg/M <sup>3</sup> – compounds (b) 3 mg/M <sup>3</sup> – fume 1 mg/M <sup>3</sup> - fume	5 mg/M <sup>3</sup> – dust & compounds 1 mg/M <sup>3</sup> – fume (b) 3 mg/M <sup>3</sup> - fume
*Phosphorus CAS 8049-19-2	0.035 max	10 mg/M <sup>3</sup> for total dust (pnor) <sup>d</sup> 5mg/M <sup>3</sup> for respirable fraction (pnor) <sup>d</sup>	10 mg/M <sup>3</sup> for total dust (pnos) <sup>e</sup> 3 mg/M <sup>3</sup> for respirable fraction (pnos) <sup>e</sup>
Sulfur CAS 7704-21-3	0.035 max	5 mg/M <sup>3</sup> as sulfur dioxide (b) 10 mg/M <sup>3</sup> – as sulfur dioxide	5.2 mg/M <sup>3</sup> as sulfur dioxide (b) 13 mg/M <sup>3</sup> – as sulfur dioxide
Metallic Coating: *Zinc CAS NO 7440-66-6 Zinc Dust or Fume	0.50 – 3.00	5 mg/M <sup>3</sup> as zinc oxide fume (b) 10 mg/m <sup>3</sup> – zinc oxide fume 10 mg/M <sup>3</sup> - zinc oxide dust 5 mg/M <sup>3</sup> - zinc oxide respirable fraction	10 mg/M <sup>3</sup> - zinc oxide total dust 5 mg/M <sup>3</sup> - zinc oxide fume (b) 10 mg/M <sup>3</sup> – zinc oxide fume
*Aluminum CAS NO 7429-90-5 Aluminum Dust or Fume	<0.10	15 mg/M <sup>3</sup> – metal dust 5 mg/M <sup>3</sup> – respirable fraction	10 mg/M <sup>3</sup> – dust 5 mg/M <sup>3</sup> – welding fumes
*Chromium CAS 7440-47-3	<0.0005	1 mg/M <sup>3</sup> as metal	0.5 mg/M <sup>3</sup> as metal or Cr III compounds
Polymeric OD Coatings	<0.50	n/a	n/a
Polymeric ID Coatings	0.10 max	n/a	n/a

(b) Denotes short term exposure limit (STEL).

(c) Denotes "ceiling limit" which is not to be exceeded at any time.

\* Subject to Section EPCRA 313 reporting.

(d) Particulates not otherwise regulated- nuisance or inert dusts not listed as a specific name

(e) Particulates not otherwise specified- nuisance or inert dusts not containing silica or asbestos

### III. PHYSICAL DATA

Melting Point Base Material: 2750° F	Metallic Coating: 800°-900° F	Appearance & Odor:	Bright Metallic No Odor
---	-------------------------------	--------------------	----------------------------

### IV. FIRE AND EXPLOSION DATA

Steel Products in the Solid State present no fire or explosion hazard.

### V. REACTIVITY DATA

Stable under normal conditions of use, storage, and transport. Will react with strong acid to liberate hydrogen. At temperatures above

# MATERIAL SAFETY DATA SHEET

## STEEL PRODUCTS

the melting point of the coating, galvanized pipe may liberate zinc fumes, carbon monoxide, and oxides of nitrogen.															
<b>VI. HEALTH HAZARD DATA</b>															
Note: Steel products under normal conditions do not present an inhalation, ingestion, or contact health hazard. However, operations such as burning, welding, sawing, brazing, grinding, and possibly machining, etc, which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates, may present health hazards.															
EFFECTS OF OVEREXPOSURE:															
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="padding: 5px;">Major Exposure Hazard</th> </tr> <tr> <th style="padding: 5px;">INHALATION</th> <th style="padding: 5px;">SKIN CONTACT</th> <th style="padding: 5px;">EYE CONTACT</th> <th style="padding: 5px;">INGESTION</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 10px;"><b>X</b></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Major Exposure Hazard				INHALATION	SKIN CONTACT	EYE CONTACT	INGESTION	<b>X</b>			
Major Exposure Hazard															
INHALATION	SKIN CONTACT	EYE CONTACT	INGESTION												
<b>X</b>															
Chronic inhalation of high concentrations of iron oxide fumes or dusts may lead to a benign pneumoconiosis (siderosis). Inhalation of high concentrations of ferric oxide may 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, and chills. No long term effects of metal fume fever have been noted.															
<b>EMERGENCY AND FIRST AID PROCEDURES</b>															
For overexposure to airborne fumes and particulates, remove exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated. Seek medical attention promptly.															
Treat metal fume fever by bed rest and administer a pain and fever reducing medication.															
<b>VII. SPILL OR LEAK PROCEDURES</b>															
Not applicable to steel in the solid state.															
<b>VIII. SPECIAL PROTECTION INFORMATION</b>															
RESPIRATORY: For welding or burning – NIOSH/MSHA approved dust and fume respirators should be used to avoid excessive inhalation of particulates. Appropriate respirator selection depends on the magnitude of exposure.															
SKIN: Protective gloves should be worn as required for welding, burning, or handling operations.															
EYE: Use safety glasses or goggles as required for welding, burning or handling operations.															
VENTILATION: Local exhaust ventilation should be provided when sawing, grinding or machining to prevent excessive dust or fume exposure. During welding, burning or brazing please follow the ANSI Standard Z49.1 "Safety in Welding and Cutting".															
OTHER PROTECTIVE EQUIPMENT: Depending upon the conditions of use and specific work situations, additional protective equipment and/or clothing may be required to control exposures.															
<b>IX. SPECIAL PRECAUTIONS</b>															
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Operations with the potential for generating high concentrations of airborne particulates should be evaluated and controlled as necessary. Avoid breathing metal fumes and/or dusts.															
OTHER COMMENTS:															
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with chronic respiratory disorders (ie asthma, chronic bronchitis, emphysema, etc) may be adversely affected by any fume or airborne particulate matter exposure.															

THIS INFORMATION IS TAKEN FROM SOURCES OR BASED UPON DATA BELIEVED TO BE RELIABLE; HOWEVER ALLIED TUBE & CONDUIT CORPORATION MAKES NO WARRANTY AS TO THE ABSOLUTE CORRECTNESS OR SUFFICIENCY OF ANY OF THE FOREGOING OR THAT ADDITIONAL OR OTHER MEASURES MAY NOT BE REQUIRED UNDER PARTICULAR CONDITIONS.