



Health	0
Fire	0
Reactivity	0
Personal Protection	C

MATERIAL SAFETY DATA SHEET

STUD WELDING PINS

Section 1: Chemical Product and Company Identification

Product Name: Stud Welding Pins

Manufacturer: Motor Guard Corporation
 580 Carnegie Street
 Manteca, CA 95337
 United States of America
 Phone: (209) 239-9191
 Fax: (209) 239-5114

Manufacturer Part Number / Description: 12170, 12180, Copper Plated Steel Pin

Distributor: Motor Guard Corporation
 580 Carnegie Street
 Manteca, CA 95337-6141
 United States of America
 Phone: (800) 227-2822
 Fax: (800) 237-7581

Distributor Part Number / Description: 00506, 00513, 00548, 00549, 00544, 00545, 00547, 00551, 00546, 00555, 00556, 00558, 00553, 00557

Section 2: Composition and Information on Ingredients

CAS#	Chemical Name	Chemical Symbol	% by Weight
7439-96-5	Manganese	Mn	.400
7723-14-0	Phosphorus	P	.040
7704-34-9	Sulfur	S	.050
7440-21-3	Silicon	Si	.100
7429-90-5	Aluminum	Al	.080
7440-50-5	Copper	Cu	.007
7439-89-6	Iron	Fe	BALANCE
288-88-0	Triazole	C ₂ H ₃ N ₃	.010

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Section 3: Hazards Identification

Appearance: Copper plated steel pin.

Potential Acute Health Effects:

Eyes: Sparks from welding may cause burns/injury to eyes
Skin: Sparks from welding may cause burns to skin
Ingestion: N/A
Inhalation: Inhalation of welding fumes may cause irritation of lungs
Other: N/A

Potential Chronic Health Effects: None

Target Organs: N/A

Section 4: First Aid Measures

Eye Contact: Flush burns with water and seek medical attention

Skin Contact: Flush burns with water and seek medical attention

Inhalation: Remove subject to well ventilated area and seek medical attention

Ingestion: N/A

Notes to Physician: None

Antidote: N/A

Section 5: Fire and Explosion Data

Flammability: N/A

Explosion Limits: LEL: N/A UEL: N/A

Auto-Ignition Temperature: N/A

Products of Combustion: See Section 10

Flash Point: N/A

Unusual Fire or Explosion Hazards: None

NFPA Rating: N/A

Special Firefighting Procedures: None

Welding arc and sparks can ignite combustibles. Refer to American National Standard z49.1 for fire prevention during welding.

Section 6: Accidental Release Measures

Personal Protection: None

Procedures for Spills/Leaks: None

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Section 7: Handling and Storage

Handling: None

Storage: None

Section 8: Exposure Controls / Personal Protection

Engineering Controls: Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases below the TLV's in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.

Exposure Limits:

ACGIH: N/A

NIOSH: N/A

OSHA: N/A

Personal Protective Equipment:

Eyes: Wear eye protection which helps to prevent injury from sparks. See ANSI Z-49.1r. At a minimum, this includes goggles or a protective face shield.

Skin: Wear head, hand, and body protection which help to prevent injury from radiation, sparks and electrical shock. See ANSI Z-49.1. At a minimum, this includes welder's gloves and a protective face shield and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.

Lungs: Use respirable fume respirator or air supplies respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV.

Section 9: Physical and Chemical Properties

Physical State:	Solid	Evaporation Rate:	N/A
Appearance:	N/A	Viscosity:	N/A
Odor:	N/A	Boiling Point:	N/A
Taste:	N/A	Melting Point:	2760 F
pH:	N/A	Solubility:	N/A
Vapor Pressure:	N/A	Specific Gravity:	7.86
Vapor Density:	N/A	Molecular Weight:	N/A

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Section 10: Stability and Reactivity Data

Stability: Stable

Instability Temp.: N/A

Conditions to Avoid: None

Conditions of Instability: None

Corrosivity: None

Hazardous Decomposition Products: N/A

Special Remarks on Reactivity: Welding fumes cannot be classified simply. The composition and quantity of both are dependent upon the material being welded, the process, procedures and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating or galvanization), number of welds and volume of work area, quality and amount of ventilation, position of welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities).

When the wire is consumed, the fume and gas decomposition products are different in percent and form from the ingredients listed in Section II. Fume and gas decomposition products, not the ingredients in the wire, are important. Decomposition products include those originating from the volatilization, reaction, or oxidation of the materials shown in Section II plus those from the base metal, wire, etc. as noted above. These components are virtually always present as complex compounds and not as metals ((Characterization of Arc Welding Fume: American Welding Society).

Reasonable expected fume constituents would include complex oxides of iron, manganese and silicon. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc.

One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet, if worn, or in the worker's breathing zone. ANSI/AWS F1.1 available from the American Welding Society, PO Box 351040, Miami FL 33135.

Section 11: Toxicological Information

Routes of Entry: Lungs

RTECS#: N/A

LD50/LC50: N/A

Carcinogenicity: Not Listed

Epidemiology: No Data Available

Teratogenicity: No Data Available

Reproductive Effects: No Data Available

Neurotoxicity: No Data Available

Mutagenicity: No Data Available

Other Studies: N/A

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Section 12: Ecological Information

Ecotoxicity: No

Products of Biodegradation: None

Toxicity of Products of Biodegradation: None

Section 13: Disposal Considerations

Waste Disposal: N/A

Section 14: Transport Information

DOT Classification: N/A

Identification: N/A

Special Provisions for Transport: None

Section 15: Regulatory Information

US Federal

TSCA: N/A

Health & Safety Reporting Act: N/A

SARA Section 302: N/A

SARA Section 313: N/A

Clean Air Act: N/A

Clean Water Act: N/A

OSHA: N/A

HMIS:	Health Hazard:	0
	Fire Hazard:	0
	Reactivity:	0
	Personal Protection:	C

US State

RTK: N/A

International

WHMIS (Canada): N/A

DSL/NDSL (Canada): N/A

DSCL (EEC): N/A

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Section 16: Other Information

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Date Last Updated: 10/06/2008

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