

MATERIAL SAFETY DATA SHEET

DATE PREPARED
11/20/85

C 18900

MSDS No.
I-30

Rev. Date

THERMACOTE-WELCO COMPANY
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IMPORTANT: Read this MSDS before handling and disposing of this product and pass this information on to employees, customers, and users of this product.

I. General

Trade Name COPPER 189 (BRAZING ROD)	Telephone Numbers 704-739-6421
Other Names DOC (DEOXIDIZED COPPER)	
Chemical Family COPPER-TIN-SILICON MAGNESIUM ALLOY 189	DOT Hazardous Materials Proper Shipping Name NONE
Generic Name COPPER WELDING ROD	DOT Hazard Class N/AP
CAS No. NONE	Company ID No. G000000030
	UN/NA ID No. NOT REGULATED

II. CAUTION Summary of Hazards

METAL MACHINING OR GRINDING OPERATIONS MAY PRODUCE FINE PARTICULATE OR DUST; HEATING, MELTING, WELDING, OR BRAZING MAY PRODUCE METAL FUMES AND PARTICULATES. INHALATION OF EXCESSIVE FUME OR DUST CONCENTRATIONS MAY RESULT IN RESPIRATORY TRACT IRRITATION AND/OR METAL FUME FEVER.

III. Fire and Explosion

Flash Point (Method) N/AP	Autoignition Temperature (Method) N/AP	Flammable Limits (% Vol. in Air) Lower N/AP Upper N/AP
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Fire and Explosion Hazards
DUST HAZARD EXISTS UNDER FAVORING CONDITIONS OF SMALL PARTICLE SIZE. DISPERSION IN AIR AND STRONG IGNITION SOURCE MAY RESULT IN AN EXPLOSION.

Extinguishing Media
DRY CHEMICAL
USE DRY POWDER FOR METAL FIRES. GENTLY SPOON MEDIA ONTO FIRE. DO NOT DISTURB PARTICLES.

Special Firefighting Procedures
DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION INCLUDING PRESSURE-DEMAND, SELF-CONTAINED BREATHING APPARATUS.

Health Hazards

Summary of Acute Hazards: RESPIRATORY TRACT, IRRITATION, METAL FUME FEVER, EYE IRRITATION.

Primary Route(s)

Route of Exposure	Signs and Symptoms	Primary Route(s)
Inhalation	INHALATION OF EXCESSIVE FUME OR DUST CONCENTRATIONS MAY RESULT IN RESPIRATORY TRACT IRRITATION AND METAL FUME FEVER.	<input checked="" type="checkbox"/>
Eye Contact	MECHANICAL IRRITATION MAY RESULT FROM AN ACCUMULATION OF DUST PARTICLES IN THE EYE.	<input checked="" type="checkbox"/>
Skin Absorption	NO SIGNIFICANT SIGNS OR SYMPTOMS INDICATIVE OF ANY ADVERSE HEALTH HAZARD ARE EXPECTED TO OCCUR.	<input type="checkbox"/>
Skin Irritation	NO SIGNIFICANT SIGNS OR SYMPTOMS INDICATIVE OF ANY ADVERSE HEALTH HAZARD ARE EXPECTED TO OCCUR.	<input type="checkbox"/>
Ingestion	THIS MATERIAL MAY BE TOXIC IF SWALLOWED IN LARGE QUANTITIES.	<input type="checkbox"/>

Summary of Chronic Hazards and Specific Health Effects: SYMPTOMS OF METAL FUME FEVER MAY LAST 24 TO 48 HOURS AND MAY INCLUDE A SWEET OR METALLIC TASTE IN THE MOUTH, DRYNESS AND IRRITATION OF THE THROAT, COUGH, SHORTNESS OF BREATH, CHEST PAIN, NAUSEA, VOMITING, WEAKNESS, FATIGUE, MUSCLE AND JOINT PAIN, CHILLS, SWEATING AND FEVER.

V. Protective Equipment and Other Control Measures

Respiratory	IF EXPOSURE EXCEEDS THE PEL/TLV, USE NIOSH/MSHA APPROVED RESPIRATORY PROTECTION EQUIPMENT AS SPECIFIED IN THE NIOSH/OSHA OCCUPATIONAL HEALTH GUIDELINES FOR CHEMICAL HAZARDS.
Eye	USE SAFETY GLASSES WITH SIDE SHIELDS OR GOGGLES TO PREVENT INJURY FROM FLYING PARTICLES OR HIGH DUST CONCENTRATIONS. USE GOGGLES OR SHIELD WITH APPROPRIATE LIGHT FILTRATION DURING WELDING OR CUTTING OPERATIONS.
Skin	WHERE USE CAN RESULT IN SKIN CONTACT WITH PARTICULATE, PRACTICE GOOD PERSONAL HYGIENE. WASH HANDS AND OTHER EXPOSED AREAS WITH MILD SOAP AND WATER BEFORE EATING, DRINKING, OR SMOKING.
Engineering Controls	USE ADEQUATE VENTILATION TO KEEP FUME OR DUST CONCENTRATION BELOW THE OCCUPATIONAL EXPOSURE LIMITS SHOWN IN SECTION VI. (REFER TO ANSI Z49.1, "SAFETY IN WELDING AND CUTTING" AND "OSHA REGULATION" CFR 1910.252).
Other Hygienic and Work Practices	WHERE APPLICABLE, USE PROTECTIVE GLOVES TO PROTECT AGAINST HEAT OR SHARP METAL EDGES.

VI. Occupational Exposure Limits

SEE ADDITIONAL DATA BEGINNING ON PAGE 5

Substance	Source	Date	Type	Value/Units	Time
COPPER FUME COPPER DUSTS AND MISTS MANGANESE TIN (INORGANIC COMPOUNDS, EXCEPT OXIDES) ZINC OXIDE FUME COPPER FUME COPPER DUSTS & MISTS, AS CU MANGANESE DUST & COMPOUNDS MANGANESE, FUME SILICON	OSHA	1984	TWA	0.1 MG/M3	8 HRS
	OSHA	1984	TWA	1 MG/M3	8 HRS
	OSHA	1984	CEILING	5 MG/M3	8 HRS
	OSHA	1984	TWA	2 MG/M3	8 HRS
	OSHA	1984	TWA	5 MG/M3	8 HRS
	ACGIH	1984	TWA	0.2 MG/M3	8 HRS
	ACGIH	1984	TWA	1 MG/M3	8 HRS
	ACGIH	1984	STEL	2 MG/M3	15 MIN
	ACGIH	1984	CEILING	5 MG/M3	8 HRS
	ACGIH	1984	TWA	1 MG/M3	15 MIN
ACGIH	1984	STEL	3 MG/M3	9 HRS	
ACGIH	1984	TLV	10 MG/M3	15 MIN	
ACGIH	1984	STEL	20 MG/M3	15 MIN	