

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-81187

11/25/85

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME THERMACOTE WELCO		EMERGENCY TELEPHONE NO. 704-739-6421
ADDRESS HEV 151, YORK ROAD, KINGS MTN. N.C. 28086		
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS 4HW	
CHEMICAL FAMILY	FORMULA	

SECTION II HAZARDOUS INGREDIENTS

IMPORTANT! This section covers the materials from which this product is manufactured. The fumes and gases produced during welding with normal use of this product are covered in Section V.

COVERING OR FLUX	WT%	TLV MG/M3	METAL WIRE	WT%	TLV MG/M
Chromium	6.0		Mn.	.5	
Ti O2	26.0		SiO2	.5	
SiO2	26.0		FE AS FEO	99.0	
F2	7.50				
CAO	12.0				
FE Alloys	9.0				
FEO	14.0				
MN.	2.0				

*The term "Hazardous" should be interpreted as a term required and defined in the OSHA Hazard Communications Standard (29CFR 1910.1200) and does not necessarily imply the existence of any hazard.

SECTION III - PHYSICAL DATA NOT APPLICABLE

BOILING POINT (°F.)	SPECIFIC GRAVITY (H ₂ O=1)
VAPOR PRESSURE (mm Hg.)	PERCENT VOLATILE BY VOLUME (%)
VAPOR DENSITY (AIR=1)	EVAPORATION RATE (_____ =1)
SOLUBILITY IN WATER	
APPEARANCE AND ODOR	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA NOT APPLICABLE

FLASH POINT (Method used)	FLAMMABLE LIMITS	LC50	LD50
EXTINGUISHING MEDIA			
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

SECTION V HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE	EMERGENCY AND FIRST AID PROCEDURES
pulmonary irritation from dust inhalation	remove to fresh air

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE	
	STABLE	X
INCOMPATIBILITY (MATERIALS TO AVOID)	None	
HAZARDOUS DECOMPOSITION PRODUCTS	CO, CO ₂ , Ozone, oxides of nitrogen	
HAZARDOUS POLYMERIZATION	Not Applicable	

SECTION VII SPILL OR LEAK PROCEDURES

Not Applicable

SECTION VIII SPECIAL PROTECTION INFORMATION (See Note)

RESPIRATORY PROTECTION (SPECIFY TYPE)	Weld fume respirator or airline respirator for confined space or where exposures are above TLV.				
VENTILATION	<table border="1"> <tr> <td>LOCAL EXHAUST</td> <td>in semi-open or poorly ventilated spaces</td> </tr> <tr> <td>MECHANICAL (GENERAL)</td> <td>in semi-open or poorly naturally ventilated space</td> </tr> </table>	LOCAL EXHAUST	in semi-open or poorly ventilated spaces	MECHANICAL (GENERAL)	in semi-open or poorly naturally ventilated space
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EYE PROTECTION	Face shield and safety glass #12 shade				
PROTECTIVE GLOVES	Welder's protective gloves				
OTHER PROTECTIVE EQUIPMENT	Welder's clothing for protection against sparks and hot material				

SECTION IX SPECIAL PRECAUTIONS (See Note)

OTHER PRECAUTIONS Arc and sparks could be source of ignition of combustible products

NOTE: For additional information, see American National Standard Safety in Welding and Cutting Z49.1-1967 (American Welding Society Publication Z49.1-1967).