

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 HWY 161, YORK ROAD, KINGS MOUNTAIN, N.C. 28086		
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS 5 FLUX	
CHEMICAL FAMILY	FORMULA	

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.

Material (CAS No.)	Weight%	Exposure Limit 1984/85 TLV-TWA (OSHA PEL)
Zinc Chloride Fumes 7646-85-7		1 mg/m ³ ACGIH
Ammonium Chloride 12125-02-9		10 mg/m ³ ACGIH as fumes
Hydrogen Chloride 7647-01-0		7 mg/m ³ Corrosive
Methyl Alcohol 67-56-1		260 mg/m ³ Flammable

*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

BOILING POINT (°F.)	221	SPECIFIC GRAVITY (H ₂ O=1)	1.23
VAPOR PRESSURE (mm Hg.)	8.956	PERCENT VOLATILE BY VOLUME (%)	76.8
VAPOR DENSITY (AIR=1)	<1	EVAPORATION RATE (_____ =1)	<1
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR Water clear solution with a slight alcohol scent.			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N/A	FLAMMABLE LIMITS	N/A	LC ₅₀	LD ₅₀
EXTINGUISHING MEDIA Water, fog, foam, or CO ₂					
SPECIAL FIRE FIGHTING PROCEDURES NONE					
UNUSUAL FIRE AND EXPLOSION HAZARDS May release toxic metal halide fumes, use approved apparatus.					

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	
EFFECTS OF OVEREXPOSURE	
SWALLOWING	Chemical burn to digestive system.
SKIN ABSORPTION	Not classified as a skin absorbent.
INHALATION	Irritant to respiratory system.
SKIN CONTACT	Possible dermatitis, possible chemical burn.
EYE CONTACT	Irritation to eyes, possible burn of eye surfaces.
EMERGENCY AND FIRST AID PROCEDURES:	
SWALLOWING : Do Not induce vomiting. Call a physician. If conscious administer milk or water to dilute.	
SKIN : Wash skin thoroughly with soap & Water. If rash develops, call a physician.	
INHALATION: Remove to fresh air.	
EYES: Flush with water for a least 15 minutes. Get medical attention.	

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	XX	NONE
INCOMPATIBILITY (Materials to avoid) None			
HAZARDOUS DECOMPOSITION PRODUCTS -Hydrogen chloride, Zinc oxide			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID NONE
	WILL NOT OCCUR	XX	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Contain spill, absorb, sweep-up, dispose. Flush area with water to chemical sewer.
WASTE DISPOSAL METHOD	
Dispose of in accordance with all federal, state, and local regulations.	

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) If the work station is not properly ventilated, use a NIOSH approved mask.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	Maintain air flow away from user so that the TLV is never exceeded.	OTHER
PROTECTIVE GLOVES See Below		EYE PROTECTION Chemical safety glasses
OTHER PROTECTIVE EQUIPMENT Regular protection equipment normally used in a soldering operation.		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Wash Hands thoroughly after handling. Store flux in closed containers at ambient conditions.
OTHER PRECAUTIONS	Remove and wash contaminated clothing before re-use.