



MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: July 1, 1985

THERMACOTE WELCO
HWY 161, YORK ROAD
KINGS MOUNTAIN, N.C. 28086

I. IDENTIFICATION

PRODUCT NAME:		380 FLUX (113)	
CHEMICAL NAME: AND SYNONYMS:		N/A N/A	CAS NAME: CAS #:
DEPARTMENT OF TRANSPORTATION	HAZARD CLASSIFICATION		
	None		
SHIPPING NAME		N/A	

II. HAZARDOUS INGREDIENTS

MATERIAL: CAS NAME	CAS#	TLV	HAZARD
Ammonium fluoborate	13826-83-0	2.5 mg/m ³	ORM-B
Aminoethylethanolamine	111-41-1	None est.	ORM-B
Triethanolamine	102-71-6	None est.	ACGIH
Tin	7440-31-5	2 mg/m ³	ACGIH as Tin
Zinc	7440-66-6	5 mg/m ³	ACGIH as Zinc
Total fluoride as F	---	2.5 mg/m ³	ACGIH as fumes
Total boron as B ₂ O ₃	---	10.0 mg/m ³	ACGIH as fumes

Remaining ingredients are proprietary and are classified as NON-HAZARDOUS

III. PHYSICAL DATA

BOILING POINT 760 mm Hg °F	273	FREEZING POINT	N/A
SPECIFIC GRAVITY (H ₂ O = 1) @ 72°F	1.245	VAPOR PRESSURE at 20°C mmHg	N/A
VAPOR DENSITY (air = 1)	N/A	SOLUBILITY IN WATER	100
PERCENT VOLATILES BY VOLUME	N/A	EVAPORATION RATE (Butyl Acetate = 1)	N/A
APPEARANCE AND ODOR	Viscous amber liquid with strong ammonia odor.		

While we believe all information presented herein is accurate and reliable, the data are not to be taken as a guarantee or representation of any kind for which ThermoCote Welco's assumes legal responsibility. They are offered solely for your consideration, investigation and verification.

EMERGENCY PHONE NUMBER : 704-739-6421

IV. HEALTH HAZARD DATA

TLV AND SOURCE REFERENCES

12.83 mg/m³ per TLVs for mixtures in ACGIH

EFFECTS OF ACUTE OVEREXPOSURE

SWALLOWING	May be fatal if ingested. Can cause severe damage to digestive system.
SKIN ABSORPTION	None currently known.
INHALATION	Irritation to respiratory system.
SKIN CONTACT	Possible dermatitis, possibly a chemical burn.
EYE CONTACT	Irritation to eyes and possible burn of eye surfaces.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING	Do not induce vomiting. Call a physician. If conscious administer milk/water to dilute.
SKIN	Wash thoroughly with water, if rash develops, call a physician.
INHALATION	Remove to fresh air.
EYES	Flush with water at least 15 minutes. Get medical attention.

V. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

If the work station is not properly ventilated, use a NIOSH approved mask.

VENTILATION

Maintain air flow away from use, so that the TLV is never exceeded.

PROTECTIVE GLOVES

See below

EYE PROTECTION

Chemical safety glasses

OTHER PROTECTIVE EQUIPMENT

Regular protective equipment normally used in soldering operations.

VI. FIRE AND EXPLOSION HAZARD DATA				
FLASH POINT TCC °F		275		
FLAMMABLE LIMITS IN AIR, % by volume		LOWER	1.6 (estimated)	UPPER 10.0 (estimated)
EXTINGUISHING MEDIA		Water spray, alcohol foam, CO ₂ .		
SPECIAL FIRE FIGHTING PROCEDURES		Addition of water will reduce burning rate.		
UNUSUAL FIRE AND EXPLOSION HAZARDS		Use NIOSH approved apparatus - Toxic fumes.		
VII. REACTIVITY DATA				
STABILITY		CONDITIONS TO AVOID	High storage temperatures.	
UNSTABLE	STABLE			
	xxx			
INCOMPATIBILITY (materials to avoid)		Cyanides, sulfides, strong oxidants.		
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS		Ammonia, hydrogen fluoride and boron trifluoride gases.		
HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID	None	
May Occur	Will Not Occur			
	xxx			
VIII. SPILL OR LEAK PROCEDURES				
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED		Contain spillage, 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.		
IX. SPECIAL PRECAUTIONS				
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING				
Store flux in dry area at ambient temperature. Wash thoroughly hands after handling.				
OTHER PRECAUTIONS				
Wash contaminated clothing before re-use.				

Chemical components have been reported to EPA in accordance with requirements of Toxic Substance Control Act (40 CFR Part 710)

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