

CHEMTRONICS INC.

MSDS #3104

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:  
8125 COBB CENTER DRIVE  
KENNESAW, GA 30152

PRODUCT INFORMATION: 800-TECH-401  
CUSTOMER SERVICE: 800-645-5244  
EMERGENCY: (CHEMTREC) 800-424-9300

REVISION DATE: JULY 25, 1996  
PREPARED BY: GWEN COTTRELL

PRODUCT IDENTIFICATION: FLUX-OFF CZ FLUX REMOVER  
PRODUCT CODE: ES7200, ES7208B

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS#	WT. % RANGE
CIROZANE	MIXTURE	55.0-90.0
1,1,1,2-TETRAFLUOROETHANE	811-97-2	10.0-40.0
CARBINOL	67-56-1	1.0-3.0

NOTE: FOR INDUSTRIAL USE ONLY.

SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: CLEAR, COLORLESS LIQUID WITH FAINT ETHEREAL ODOR.  
THIS PRODUCT IS NONFLAMMABLE. LIQUID MAY IRRITATE EYES AND SKIN UNDER  
REPEATED OR PROLONGED EXPOSURE. BREATHING HIGH CONCENTRATIONS OF PRODUCT  
VAPOR MAY PRODUCE DIZZINESS AND NAUSEA.

POTENTIAL HEALTH EFFECTS:  
EYES: LIQUID, AEROSOLS AND VAPORS OF THIS PRODUCT MAY BE IRRITATING AND  
CAN CAUSE PAIN, TEARING, REDDENING AND SWELLING ACCOMPANIED BY A STINGING  
SENSATION.

SKIN: PROLONGED CONTACT CAN CAUSE SKIN IRRITATION.

INGESTION: MAY BE HARMFUL IF SWALLOWED. SWALLOWING THIS MATERIAL MAY RESULT  
IN NAUSEA, VOMITING AND WEAKNESS FOLLOWING BY CENTRAL NERVOUS SYSTEM  
DEPRESSION.

INHALATION: CAN BE HARMFUL IF INHALED. HIGH CONCENTRATIONS OF VAPORS IN  
IMMEDIATE AREA CAN CAUSE DIZZINESS, NAUSEA AND VOMITING.

PAGE 1

SECTION 4: FIRST AID MEASURES

EYES: IMMEDIATELY FLUSH WITH PLENTY OF WATER. AFTER INITIAL FLUSHING,  
REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING FOR AT LEAST 15 MINUTES.  
HAVE EYES EXAMINED AND TESTED BY MEDICAL PERSONNEL IF IRRITATION DEVELOPS OR  
PERSISTS.

SKIN: WASH SKIN WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. GET  
MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSIST. WASH CLOTHING BEFORE  
REUSE.

INGESTION: IF SWALLOWED, DO NOT INDUCE VOMITING. IF CONSCIOUS, GIVE 2  
GLASSES OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.  
KEEP HEAD BELOW KNEES TO MINIMIZE CHANCE OF ASPIRATING MATERIAL INTO THE

LUNGS. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
GET MEDICAL ATTENTION.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: NONE TO BOILING (TCC)

EXTINGUISHING MEDIA: USE WATER SPRAY OR FOG, CO2, DRY CHEMICAL OR WATER  
STREAM WHEN FIGHTING FIRES INVOLVING THIS MATERIAL.

FIRE FIGHTING INSTRUCTIONS: AS IN ANY FIRE, WEAR SELF-CONTAINED BREATHING  
APPARATUS (PRESSURE-DEMAND, MSHA/NIOSH APPROVED OR EQUIVALENT) AND FULL  
PROTECTIVE GEAR.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPIILLS: SHUT OFF LEAK IF POSSIBLE AND SAFE TO DO SO. ABSORB SPILL WITH  
INERT MATERIAL (E.G. DRY SAND OR EARTH), THEN PLACE IN A CHEMICAL WASTE  
CONTAINER FOR PROPER DISPOSAL. DO NOT FLUSH TO SEWER. AVOID RUNOFF INTO  
STORM SEWERS AND DITCHES WHICH LEAD TO WATERWAYS.

SECTION 7: HANDLING AND STORAGE

AVOID PROLONGED OR REPEATED CONTACT WITH EYES, SKIN, AND CLOTHING. WASH  
HANDS BEFORE EATING. USE WITH ADEQUATE VENTILATION. AVOID BREATHING PRODUCT  
VAPOR OR MIST. DO NOT REUSE THIS CONTAINER. STORE IN A COOL DRY PLACE AWAY  
FROM HEAT, SPARKS AND FLAME. KEEP CONTAINER CLOSED WHEN NOT IN USE. DO NOT  
STORE IN DIRECT SUNLIGHT. KEEP OUT OF REACH OF CHILDREN.

PAGE 2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

(VALUES ARE FROM ACGIH GUIDE TO EXPOSURE VALUES 1994)

EXPOSURE GUIDELINES:

CHEMICAL NAME	ACGIH TWA	OSHA PEL	OTHER TLV
CIROZANE	NE	NE	515 PPM @
1,1,1,2-TETRAFLUOROETHANE	NE	NE	1000 PPM (DUPONT)
CARBINOL	200 PPM	200 PPM	200 PPM

NE = NOT ESTABLISHED

@ = CHEMTRONIC'S RECOMMENDED THRESHOLD LIMIT VALUE/VALUE BASED ON COMPUTATION

NFPA AND HMIS CODES	NFPA	HMIS
HEALTH	1	1
FLAMMABILITY	0	0
REACTIVITY	1	1
PERSONAL PROTECTION	-	B

WORK/HYGIENIC PRACTICES: GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT TO  
CONTROL AIRBORNE LEVELS. THIS MATERIAL DOES NOT HAVE ESTABLISHED EXPOSURE  
LIMITS. WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: CLEAR, COLORLESS LIQUID

ODOR: ETHEREAL ODOR

PH: NA

VAPOR PRESSURE (AIR=1): 170 PSI @ 70 F  
BOILING POINT: 90 F (INITIAL)  
SOLUBILITY IN WATER: NEGLIGIBLE  
SPECIFIC GRAVITY (WATER=1): 1.50  
EVAPORATION RATE (BUTYL ACETATE=1): GT 1  
VISCOSITY: NA  
PERCENT VOLATILE: 100%

SECTION 10: STABILITY AND REACTIVITY

STABILITY: THIS PRODUCT IS STABLE.  
CONDITIONS TO AVOID: STEAM, OXIDIZERS, ELEVATED TEMPERATURES. DO NOT SPRAY  
NEAR OPEN FLAMES, RED HOT SURFACES OR OTHER SOURCES OF IGNITION.

INCOMPATIBILITY: DO NOT MIX WITH CHEMICALLY ACTIVE METALS SUCH AS POTASSIUM,  
MAGNESIUM, ZINC AND POWDERED ALUMINUM, STRONG BASE, CAUSTIC SODA, CAUSTIC  
POTASH OR OXIDIZING.

PRODUCTS OF DECOMPOSITION: THERMAL DECOMPOSITION MAY RELEASE CARBON MONOXIDE,  
CARBON DIOXIDE, HYDROGEN CHLORIDE AND HYDROGEN FLUORIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR  
CONDITIONS TO AVOID: FINELY DIVIDED ACTIVE METALS, ALKALI AND ALKALINE  
EARTH METALS.

PAGE 3

SECTION 11: TOXICOLOGICAL INFORMATION (NIOSH RTECS THROUGH OCTOBER 1995)

INHALATION:

CIROZANE @	LD50 RATS	GT 3000 PPM
TETRAFLUOROETHANE	RATS ALC	567,000 PPM/4HRS
CARBINOL	LC50 RATS	64,000 PPM/4HRS

SKIN:

CARBINOL	20 MG/24H MLD
CIROZANE @	500 MG/RATS MLD

INGESTION:

CIROZANE @	LD50/RATS	GT 5 G/KG
CARBINOL	LD50 RATS	5628 MG/KG

EYE:

CARBINOL	40 MG MOD
CIROZANE @	150 MG/RATS/24H MLD

CANCER INFORMATION: NO INGREDIENTS LISTED AS HUMAN CARCINOGENS BY NTP OR IARC  
@ INFORMATION PROVIDED BY MANUFACTURER.

SECTION 12: ECOLOGICAL INFORMATION

AVOID RUNOFF INTO STORM SEWERS AND DITCHES WHICH LEAD TO WATERWAYS. WATER  
RUNOFF CAN CAUSE ENVIRONMENTAL DAMAGE.

REPORTING: US REGULATIONS REQUIRE REPORTING SPILLS OF THIS MATERIAL THAT  
COULD REACH ANY SURFACE WATERS. THE TOLL FREE NUMBER FOR THE US COAST GUARD  
NATIONAL RESPONSE CENTER IS: 1-800-424-8802.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.  
WATER RUNOFF CAN CAUSE ENVIRONMENTAL DAMAGE.

SECTION 14: TRANSPORTATION INFORMATION

PROPER SHIPPING NAME	UN NUMBER	CLASS	SUB. RISK	PKG. GROUP	HAZARD LABEL	PKG. INSTR.	MAX. QUANTITY
AIR: AEROSOLS NON-FLAMMABLE N.O.S.	UN 1950	2.2	NA	NA	NON- FLAMMABLE	203 Y203	75 K.G.; 150 K.G.

					GAS		30 KG
GROUND:	CONSUMER COMMODITY	ORM-D					
	NA	ORM-D	NA	NA	ORM-D	PKG.	173.306
						AUTH.	173.150
							173.153

PAGE 4

SECTION 15: REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION:

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 (40 CFR 372).

CHEMICAL NAME	CAS#	WT. % RANGE
CARBINOL	65-56-1	1.0-3.0

THIS INFORMATION SHOULD BE INCLUDED ON ALL MSDSS COPIED AND DISTRIBUTED FOR THIS MATERIAL.

TOXIC SUBSTANCES CONTROL ACT (TSCA): ALL INGREDIENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

SECTION 16: OTHER INFORMATION

DO NOT PUNCTURE OR INCINERATE CONTAINERS. NORMAL VENTILATION FOR STANDARD MANUFACTURING PRACTICES IS USUALLY ADEQUATE. LOCAL EXHAUST SHOULD BE USED WHEN LARGE AMOUNTS ARE RELEASED.

REFERENCES: 29 CFR 1910.1200 40 CFR 300-700 ANSI Z400.1-1993  
 NIOSH RTECS PROVIDED BY CHEM-BANK BY SILVERPLATTER  
 GUIDE TO OCCUPATIONAL EXPOSURE VALUES 1994

TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS ACCURATE.

HOWEVER, ALL MATERIALS MAY PRESENT UNKNOWN HAZARDS AND SHOULD BE USED WITH CAUTION. IN PARTICULAR, IMPROPER USE OF OUR PRODUCTS AND THEIR INAPPROPRIATE COMBINATION WITH OTHER PRODUCTS AND SUBSTANCES MAY PRODUCE HARMFUL RESULTS WHICH CANNOT BE ANTICIPATED. FINAL DETERMINATION OF THE SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS THAT MAY EXIST.

PAGE 5 (LAST PAGE)