

CHEMTRONICS INC.

MSDS #0602

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

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: JANUARY 26, 1996
PREPARED BY: GWEN COTTRELL

PRODUCT IDENTIFICATION: FREEZ-IT 2000
PRODUCT CODE: ES1050, ES1250, ES1550

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

CHEMICAL NAME CAS# WT. % RANGE

TETRAFLUOROETHANE 811-97-2 100%

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: CLEAR, COLORLESS LIQUEFIED GAS. THIS PRODUCT IS
NONFLAMMABLE. EXPOSURE TO LIQUID MAY CAUSE FROSTBITE.

EYES: CONTACT WITH LIQUID IS IRRITATING AND MAY CAUSE FROSTBITE.

SKIN: CONTACT CAUSES FROSTBITE; PROLONGED CONTACT CAN CAUSE SKIN IRRITATION.

INGESTION: UNLIKELY DUE TO VOLATILE NATURE OF PRODUCT. CONTACT WITH LIQUID
MAY CAUSE FROSTBITE TO MOUTH AND THROAT TISSUES.

INHALATION: HARMFUL IF INHALED. HIGH CONCENTRATIONS OF VAPORS IN IMMEDIATE
AREA CAN DISPLACE OXYGEN AND CAN CAUSE DIZZINESS, UNCONSCIOUSNESS, AND EVEN
DEATH WITH LONGER EXPOSURE. KEEP PEOPLE AWAY FROM SUCH VAPORS WITHOUT
SELF-CONTAINED BREATHING APPARATUS.

PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: HEAR, LUNG, SKIN,
EYE.

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SECTION 4: FIRST AID MEASURES

EYES: TREAT FOR POSSIBLE FROSTBITE, THEN 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: TREAT FOR POSSIBLE FROSTBITE, THEN WASH SKIN WITH SOAP AND WATER.
REMOVE CONTAMINATED CLOTHING. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS
OR PERSISTS. WASH CLOTHING SEPARATELY BEFORE REUSE.

INGESTION: TREAT FOR POSSIBLE FROSTBITE. SWALLOWING LESS THAN AN OUNCE
WILL NOT CAUSE SIGNIFICANT HARM. FOR LARGER AMOUNTS, DO NOT INDUCE VOMITING.
GIVE IMMEDIATE MEDICAL ATTENTION.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: NONE TO BOILING (TCC)
LEL/UEL: NONFLAMMABLE

EXTINGUISHING MEDIA: USE ALCOHOL FOAM, CARBON DIOXIDE, OR WATER SPRAY 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

LARGE SPILLS: SHUT OFF LEAK IF POSSIBLE AND SAFE TO DO SO. WEAR SELF-CONTAINED BREATHING APPARATUS AND APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. 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.

SMALL SPILLS: ABSORB SPILL WITH INERT MATERIAL (E.G. DRY SAND OR EARTH), THEN PLACE IN A CHEMICAL WASTE CONTAINER FOR PROPER DISPOSAL.

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.

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SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

CHEMICAL NAME	ACGIH TWA	OSHA PEL	OTHER (DUPONT) AEL
TETRAFLUOROETHANE	NA	NA	1,000 PPM

WORK/HYGIENIC PRACTICES: GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT TO CONTROL AIRBORNE LEVELS. LOCAL EXHAUST VENTILATION MAY BE NECESSARY TO CONTROL ANY AIR CONTAMINANTS TO WITHIN THEIR TLVS DURING THE USE OF THIS PRODUCT. WEAR A POSITIVE PRESSURE AIR-SUPPLIED RESPIRATOR IN SITUATIONS WHERE THERE MAY BE POTENTIAL FOR AIRBORNE EXPOSURE. WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES) AND A FULL FACE SHIELD. WEAR RUBBER OR OTHER CHEMICALLY RESISTANT GLOVES WHEN HANDLING THIS MATERIAL.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: CLEAR, COLORLESS LIQUEFIED GAS
ODOR: SLIGHT ETHEREAL ODOR
PH: NA
VAPOR PRESSURE: 82 PSIG @ 77 F (AIR=1)
VAPOR DENSITY: 3.18 @ 77 F (AIR=1)

COLOR: COLORLESS
SOLUBILITY IN WATER: 0.10% BY WEIGHT @ 77 F/1 ATM
SPECIFIC GRAVITY (WATER=1): 1.21
EVAPORATION RATE (BUTYL ACETATE=1): GT 1
VISCOSITY: NA
PERCENT VOLATILE: 100%
BOILING POINT: -15.7 F
MELTING POINT: NA

SECTION 10: STABILITY AND REACTIVITY

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

INCOMPATIBILITY: DO NOT MIX WITH POWDERED ALKALI AND ALKALINE EARTH METALS OR STRONG OXIDIZING AGENTS.

PRODUCTS OF DECOMPOSITION: THERMAL DECOMPOSITION MAY RELEASE HYDROFLUORIC ACID VAPOR.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NA

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SECTION 11: TOXICOLOGICAL INFORMATION

INHALATION:
TETRAFLUOROETHANE RATS ALC 567,000 PPM/4HRS

INFORMATION FROM DUPONT.
CANCER INFORMATION: NO INGREDIENTS LISTED AS HUMAN CARCINOGENS BY NTP OR IARC

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT 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.

ENVIRONMENTAL IMPACT DATA
(PERCENT BY WEIGHT)

CFC	0.0%	VOC	0.0%
HCFC	0.0%	HFC	100.0%
CL. SOLV.	0.0%	ODP	0.00

FOR MORE INFORMATION CALL: 1-800-645-5244

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: 1,1,1,2-TETRAFLUOROETHANE	UN 3159	2.2	NA	NA	NON-FLAMMABLE GAS	200	75 KG; 150 KG
GROUND: CONSUMER COMMODITY	NA	ORM-D NA	NA	NA	ORM-D	173.306	DOT-E-10232

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).

PRODUCT DOES NOT CONTAIN ANY SECTION 313 LISTED CHEMICALS.

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

PRODUCT IS A LEVEL 1 AEROSOL. 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 PARTICULAR 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.