

CHEMTRONICS INC -- ES1692, FLUX-OFF NO CLEAN(FORMERLY HEAVY DUTY FLUX-OFF 2000) --  
6850-00-602-2347

===== Product Identification =====

Product ID:ES1692, FLUX-OFF NO CLEAN(FORMERLY HEAVY DUTY FLUX-OFF 2000)

MSDS Date:10/01/2000

FSC:6850

NIIN:00-602-2347

Status Code:A

MSDS Number: CKYDN

=== Responsible Party ===

Company Name:CHEMTRONICS INC

Address:8125 COBB CENTER DRIVE

City:KENNESAW

State:GA

ZIP

:30152

Country:US

Info Phone Num:800-TECH-401/800-645-5244

Emergency Phone Num:800-424-9300

Resp. Party Other MSDS Num.:#0307

Chemtec Ind/Phone:(800)424-9300

CAGE:21267

=== Contractor Identification ===

Company Name:CHEMTRONICS INC

Address:8125 COBB CENTER DRIVE

Box:City:KENNESAW

State:GA

ZIP:30152

Country:US

Phone:770-424-4888/800-645-5244

CAGE:21267

Company Name:OMEGA ELECTRONICS

Address:95 HARTFORD AVE

Box:City:SAN CARLOS

State:CA

ZIP:94070

Country:US

Phone:650-591-2510

Contract Num:SP0450-

01-M-D575  
CAGE:7W657

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Composition/Information on Ingredients  
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Ingred Name:DICHLOROFLUOROETHANE  
CAS:1717-00-6  
RTECS #:KI0997000  
Minumum % Wt:90.  
Maxumum % Wt:95.  
Other REC Limits:500 PPM (MFR)  
Ozone Depleting Chemical:2

Ingred Name:DENATURED ALCOHOL, A MIXTURE OF ETHANOL, ISOPROPANOL, ETHYL  
ACETATE

Ingred Name:ETHANOL  
CAS:64-17-5  
RTECS #:KQ6300000  
Minumum % Wt:1.  
Maxumum % Wt:5.  
OSHA PEL:1900 MG/M3;1000 PPM  
ACGIH TLV:1880 MG/M3;1000 PPM

Ingred Name:ISOPROPANO  
L  
CAS:67-63-0  
RTECS #:NT8050000  
Minumum % Wt:.1  
Maxumum % Wt:1.  
OSHA PEL:980 MG/M3;400 PPM  
ACGIH TLV:983 MG/M3;400 PPM  
ACGIH STEL:1230 MG/M3;500 PPM

Ingred Name:ETHYL ACETATE  
CAS:141-78-6  
RTECS #:AH5425000  
Minumum % Wt:.1  
Maxumum % Wt:1.  
OSHA PEL:1400 MG/M3;400 PPM  
ACGIH TLV:1440 MG/M3;400 PPM  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:ETHYL HYDROXYPROPIONATE  
CAS:97-64-3  
RTECS #:OD5075000  
Minumum % Wt:.1  
Maxumum % Wt:1.

Ingred Name:CARBON DIOXIDE  
CAS:124-38-9  
RTECS #:FF6400000  
Minu

mum % Wt:1.

Maxumum % Wt:5.

OSHA PEL:9000 MG/M3;5000 PPM

ACGIH TLV:9000 MG/M3;5000 PPM

ACGIH STEL:54000 MG/M3

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===== Hazards Identification =====  
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LD50 LC50 Mixture:DCFETHANE, ORAL,RAT LD50 >5,000 MG/KG.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO

Health Hazards Acute and Chronic:EYES: LIQUID, AEROSOLS, AND VAPORS OF THIS PRODUCT ARE IRRITATING AND CAN CAUSE PAIN, TEARING, REDDENING AND SWELLING A

CCOMPANIED BY A STINGING SENSATION. SKIN: CONTACT CAUSES SKIN IRRITATION. INGESTI ON: HARMFUL IF SWALLOWED. IRRITATING TOMOUTH, THROAT, AND STOMACH. MAY CAUSE VOMITING. 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.

Explanation of Carcinogenicity:NO INGREDIENTS LIS TED AS HUMAN

CARCINOGENS BY NTP OR IARC.

Effects of Overexposure:EYES: IRRITATATION, PAIN, TEARING, REDDENING, AND SWELLING ACCOMPANIED BY A STINGING SENSATION. SKIN: IRRITATION. INGESTION: IRRITATION OF MOUTH, THROAT, AND STOMACH, VOMITING. INHALATION: DIZZINESS, UNCONSCIOUSNESS, AND EVEN DEATH WITH LONGER EXPOSURE.

Medical Cond Aggravated by Exposure:PRE-EXISTING HEART, LUNG, SKIN, EYE MEDICAL CONDITIONS..

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===== First Aid Measures =====  
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First Aid:EYES: IMMEDIATELY FLUSH WITH WATER. REMOVE CONTACT LENSES. CONTINUE FLUSHING FOR AT LEAST 15 MINUTES. HAVE EYES EXAMINED AND TESTED BY MEDICAL PERSONNEL IF IRRITATION DEVELOPS OR PERSISTS. SKIN: WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND WASH SEPARATELY BEFORE REUSE. INGESTION: DO NOT INDUCE VOMITING. KEEP HEAD BELOW KNEES TO MINIMIZE CHANCE OF ASPIRATING MATERIAL INTO LUNGS. NEV ER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GE

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

===== Fire Fighting Measures =====

Flash Point Method:TCC

Flash Point:NONE

Lower Limits:7.4

Upper Limits:15.5

Extinguishing Media:USE ALCOHOL FOAM, CARBON DIOXIDE, OR WATER SPRAY WHEN FIGHTING FIRES INVOLVING THIS MATERIAL.

Fire Fighting Procedures:AS IN ANY FIRE, WEAR SELF-CONTAINED BREATHING

APPARATUS (PRESSURE-DEMAND, MSHA/NIOSH APPROVED OR EQUIVALENT) AND FULL PROTECTIVE GEAR.

===== Accidental Release Measures =====

Spill Release Procedures:LARGE SPILLS: SHUT OFF LEAK. WEAR A SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE EQUIPMENT. ABSORB SPILL WITH INERT MATERIAL (E.G., DRY SAND OR EARTH). THEN PLACE IN CHEMICAL WASTE CONTAINER FOR DISPOSAL. DO NOT FLUSH TO SEWER. AVOID RUNOFF INTO STORM SEWERS AND DITCHES WHICH LEAD TO WATERWAYS.

SMALL SPILLS: ABSORB SPILL WITH INERT MATERIAL.THEN PLACE IN CHEMICAL WASTE CONTAINER FOR DISPOSAL.

===== Handling and Storage =====

Handling and Storage Precautions:AVOID PROLONGED OR REPEATED CONTACT WITH EYES, SKIN, CLOTHING. 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, FLAMES. KEEP CONTAINER CLOSED WHEN NOT IN USE.

DO NOT STORE IN DIRECT SUNLIGHT.

Other Precautions:WASH HANDS BEFORE EATING. KEEP OUT OF REACH OF CHILDREN.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:AS IN ANY FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS (PRESSURE DEMAND, MSHA/ NIOSH APPROVED).

Ventilation:GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT TO CONTROL AIRBORNE LEVELS.

Protective Gloves:WEAR RUBBER OR OTHER CHEMICALLY RESISTANT GLOVES WHEN HANDLING THIS MATERIAL.

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Eye Protection:WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES).  
Work Hygienic Practices:WASH HANDS BEFORE EATING.  
Supplemental Safety and Health  
LOCAL EXHAUST VENTILATION MAY BE NECESSARY TO CONTROL ANY AIR  
CONTAMINANTS TO WITHIN THEIR TLVS DURING THE USE OF THIS PRODUCT.

===== Physical/Chemical Properties =====

HCC:V2  
Boiling Pt:=32.2C, 90.F  
B.P. Text:DICHLOROFLUOROETHANE  
Vapor Pres:517 MM HG@70F  
Vapor Density:>1(AIR=1)  
Spec Gravity:1.23 (H2O= 1)  
Viscosity:1  
(APPROX.) (H2O=1)  
Evaporation Rate & Reference:>1 (BUTYL ACETATE=1)  
Solubility in Water:NEGLIGIBLE.  
Appearance and Odor:CLEAR, COLORLESS LIQUID; ETHEREAL ODOR.  
Percent Volatiles by Volume:100%

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
DO NOT MIX WITH POWDERED ALKALI AND ALKALINE EARTH METALS OR STRONG  
OXIDIZING AGENTS.  
Stability Condition to Avoid:DO NOT SPRAY NEAR OPEN FLAMES, RED HOT  
SURFACES OR OTHER SOURCES OF  
IGNITION.  
Hazardous Decomposition Products:THERMAL DECOMPOSITION MAY RELEASE  
CARBON MONOXIDE, CARBON DIOXIDE, AND INCOMPLETELY BURNED  
HYDROCARBONS AS WELL AS HYDROCHLORIC AND HYDROFLUORIC ACID VAPOR.  
Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:INHALATION: DICHLOROFLUOROETHANE: (RATS) LC50  
= 61.647 PPM/ 4HRA; ETHANOL: (RATS) LC50= 20,000 PPM/10HR.  
INGESTION: DICHLOROFLUOROETHANE  
, (RATS) LD50 = >5,000 MG/KG;  
ETHANOL, (RATS) LD50 = 7,060MG/KG. ETHYL HYDROXYPROPIONATE, (RAT)  
LD50 =5,000 MG/KG. EYE: ETHANOL: RABBIT, 500 MG SEV. SKIN:  
DICHLOROFLUORETHANE, (RATS) LD50= >2,000 MG/KG; ETHANOL, RABBIT 400  
MG OPEN MLD; ETHYL HYDROXYPROPIONSTE (RAB BIT) LD50= 5,000MG/KG.  
MUTAGENIC EFFECTS: NONE. TERATOGENIC EFFECTS: NONE. REPRODUCTIVE  
EFFECTS: NONE. CANCER INFORMATION: NO INGREDIENTS LISTED AS HUMAN  
CARCINOGENS BY NTP OR IARC.

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Ecological Information =====

Ecological:AVOID RUNOFF INTO STORM SEWERS AND DITCHES WHICH LEAD TO WATERWAYS. WATER RUNOFF CAN CAUSE ENVIRONMENTAL DAMAGE. US REGULATIONS REQUIRE REPORTING SPILLS OF THIS MATERIAL THAT COULD REACH ANY SURFACE W ATERS. 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%; HCFC = 94.7%; CT. SOL = 0.0%; VOC = 5.3%; HP C = 0.0%; ODP = 0 .10%.

===== Disposal Considerations =====

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

===== MSDS Transport Information =====

Transport Information:AIR: AEROSOLS, NONFLAMMABLE N.O.S., UN 1950, CLASS 2.2, PKG = N/A, LABEL: NONFLAMMABLE GAS, PKG INSTR.: 203, MAX QUANTITY: 75 KG, 150 KG. GROUND: CONSUMER COMMODITY, ORM-D; U N NUMBER: N/A; PKG: N/A; L ABEL: ORM-D; PKG. AUTH.; MAX QUANTITY: 173.306

===== Regulatory Information =====

SARA Title III Information:SECTION 313 SUPPLIER NOTIFICATION: THIS PRODUCT CONTAINS THE FOLLOWING TOXIX CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 (40 CFR 372). DICHLOROFLUOROETHANE, CAS# 1717-00-6, WT % 90.0% TO 95.0 %. THIS INFORMATION SH OULD BE INCLUDED ON ALL MSDS'S COPIED AND DISTRIBUTED FOR THIS MATERIAL.

Federal Regulatory Information:ALL INGREDIENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

===== Other Information =====

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