Product ID:HALOCARBON TYPE II OIL MSDS Date:09/18/2000 FSC:9150 NIIN:01-101-8835 Status Code:A MSDS Number: CLSDC === Responsible Party === Company Name: HALOCARBON PRODUCTS CORPORATION Box:661 City:RIVER EDGE State:NJ ZIP:07661 Country:US Info Phone Num:201-262-8899 **Emergency Phone Num:** 803-278-3504 Preparer's Name: DR. LEE G. SPAQUE Chemtrec Ind/Phone:(800)424-9300 CAGE:UO752 === Contractor Identification === Company Name: HALOCARBON PRODUCTS CORPORATION Address:887 KINDERKAMACK RD Box:City:RIVER EDGE State:NJ ZIP:07661 Country:US Phone:201-262-8899 Contract Num:SP0450-02-M-L275 CAGE:07644 Company Name: HALOCARBON PRODUCTS CORPORATION Address:Box:661 City:RIVER EDGE State:NJ ZIP:07661 Country:US Phone:201-262-8899 CAGE:UO752

======= Composition/Information on Ingredients

Ingred Name: PROPRIETARY RUST INHIBITOR

Ingred Name:POLYTRIFLUOROCHLOROETHYLENE CAS:9002-83-9 RTECS #:KM6555000 Other REC Limits:NONE OSHA PEL:NONE ACGIH TLV:NONE

Routes of Entry: Inhalation:NO Skin:YES Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Effects of Overexposure:NAUSEA, SHORTNESS OF BREATH AND LOSS OF APPETITE. Medical Cond Aggravated by Exposure:NONE KNOWN

First Aid:INHALATION: N/A. EYE: FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES. SKIN: WASH WITH SOAP AND WATER. NO SKIN EFFECTS EXPECTED. ORAL: DILUTE BY DRINKING LARGE QUANTITIES OF WATER. IF VOMITING OCCURS AD MINISTER MORE WATER.

Flash Point:NONE Autoignition Temp:Autoignition Temp Text:NOT DE Extinguishing Media:USE AGENT SUITABLE FOR SURROUNDING FIRE. Fire F ighting Procedures:WEAR SELF CONTAINED BREATHING APPARATUS IF THERE IS DANGER OF LEAKAGE

Unusual Fire/Explosion Hazard:THERMAL DECOMPOSITION PRODUCTS ARE TOXIC AND CORROSIVE.

Spill Release Procedures: SPILLS MAY BE PICKED UP WITH AN ABSORBENT SUCH AS VERMICULITE.

Other Precautions: SINCE THE POTENTIAL FOR HUMAN TOXICITY CANNOT BE RULED OUT PROP

ER VENTILATION AND WORK PRACTICES SHOULD BE EMPLOYED.

Ventilation:GENERAL ROOM VENTILATION PLUS LOCAL EXHAUST AT POINT OF EMISSION.
Protective Gloves:IMPERVIOUS GLOVES.
Eye Protection:SAFETY GLASSES OR FACE SHIELD.
Other Protective Equipment:NONE
Supplemental Safety and Health

HCC:N1 Boiling Pt:>260.C, 500.F B.P. Text:DECOMPOSES Vapor Pres:LESS THAN 0.1 MM HG Spec Gravity:CA 2 (H2O=1) Solubility in Water:NEGLIGIBLE Appearance and Odor:COLORLESS OIL

Stability Indicator/Materials to Avoid:YES
ALUMINUM THREADED CONNECTIONS WHERE GALLING AND SEIZURE MAY INITIATE REACTION. REACTS WITH METALS LIKE SODIUM AND POTASSIUM, AMINES, LIQUID FLUORINE AND LIQUID CHLORINE TRIFLUORIDE.
Stability Condition to Avoid:THE MAXIMUM SAFE OPERATING TEMPERATURE RECOMMENDED IS 200C AND MAX
IMUM SHOT-TERM TEMPERATURE RECOMMENDED IS 260C IN SCRUPULOUSLY CLEAN SYSTEMS.
Hazardous Decomposition Products:THE DECOMPOSITION TO TOXIC, NON-SLUDGE FORMING VOLATILES OCCURS RAPIDLY AT 325C, NOTICEABLY AT 300C AND IN LESSER AMOUNTS AT LOWER TEMPERATURES.
Conditions to Avoid Polymerization:WILL NOT OCCUR

Toxicological Information: THIS OIL CAUSED NO DEATHS IN RATS DOSED DAILY FOR 21 DAYS WITH 2.5 G/KG ORALLY. SYM

PTOMS ATTRIBUTED TO FLUORIDE POISONING BY METABOLISM IN THE LIVER WERE NOTED. ENLARGEMENT OF THE LIVERS AND KIDNEYS I N THE TREATED ANIMAL SUPPORT THIS CONCLUSION. EXTENSIVE STUDIES HAVE BEEN CONDUCTED ON LIGHTER, MORE VOLATILE HALOGARBON OILS. BASED ON ALL THE AVAILABLE DATA IN THREE SPECIES OF ANIMALS, LIMITED EXPO SURE TO HALOCARBON OIL SHOULD NOT BE HARMFUL TO ANY PORTION OF THE HUMAN ANATOMY. STUDIES CONDUCTED BY THE AIR FORCE HAVE DEMONSTRATED LIVER TOXICITY IN RODENTS BUT NOT IN PRIMATES. "SEE OTHER"
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Waste Disposal Methods:MAY BE INCINERATED BY LICENSED WASTE DISPOSAL COMPANY. OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS.
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Transport Information:HAZARDOUS MATERIALS/DANGEROUS GOODS SHIPPING REGULATIONS: U.S (49 CFR): PROPER SHIPPING NAME: NON-HAZARDOUS MATERIAL. IATA: PROPER SHIPPING NAME: NON-D ANGEROUS GOODS. IMDG: PROPER SHIPPING NAME: NON-D ANGEROUS GOODS.

CONTAINS THE FOLLOWING TOXIC CHEMICAL(S) SUBJECT TO SECTION 313

Federal Regulatory Information: OSHA HAZARD RATING: THIS PRODUCT

TITLE III REPORTING REQUIREMENTS (40 CFR PART 372). NONE.

State Regulatory Information:

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