Product ID:FC-104 FLUORINERT BRAND FLASHTUBE COOLANT MSDS Date:08/20/1996 FSC:6850 NIIN:00-408-0547 MSDS Number: BDXWZ === Responsible Party === **Company Name:3M COMPANY** Address:3M CENTER BLDG 223-3N City:SAINT PAUL State:MN ZIP:55144-0001 Country:US Info Phone Num:612-733-5454 Emergency Phone Num:612-733-5454 CAGE:76381 === Contractor Identification = ___ Company Name: MINNESOTA MINING AND MFG CO, DBA 3M Address:3M CENTER BLDG 224-5S-04 Box:City:SAINT PAUL State:MN ZIP:55144-1000 Country:US Phone:866-556 5712 / 612-733-1110 CAGE:76381 Company Name: MINNESOTA MINING AND MFG CO PERFOMANCE CHEM AND FLUIDS DIV Address:3M CTR Box:City:SAINT PAUL State:MN ZIP:55144-1000 Country:US Phone:800-364-3577/651-737-6501 CAGE:28112

Ingred Name:PERFLUORO COMPOUNDS, C5-18 CAS:86508-42-1 Frac tion by Wt: 100.0% Other REC Limits:NONE SPECIFIED

Ingred Name:PRODUCT OF THERMAL DECOMPOSITION! - HYDROGEN FLUORIDE (SARA 302/313) (CERCLA) CAS:7664-39-3 RTECS #:MW7875000 Other REC Limits:NONE RECOMMENDED OSHA PEL:3 PPM (F) ACGIH TLV:C 3 PPM(F); 9495 EPA Rpt Qty:100 LBS DOT Rpt Qty:100 LBS

Ingred Name:PRODUCT OF THERMAL DECOMPOSITION! - PERFLUOROISOBUTYLENE CAS:382-21-8 RTECS #:UD1800000 Other REC Limits:NONE RECOMMENDED ACGIH TLV:C 0.01 PPM; 9495

======= Hazards Identifi

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:USE IS NOT EXPECTED TO RESULT IN SIGNIFICANT IRRITATION. IF PRODUCT IS EXPOSED TO EXTREME HEAT, TOXIC DECOMPOSITION PRODUCTS MAY INCLUDE HYDROGEN FLUORIDE & PERFLUOROISOBUTYLENE. Explanation of Carcinogenicity:MANUFACTURER GAVE NO INFORMATION ABOUT

CARCINOGENICITY. HMIS FOUND NO LISTING & DOES NOT EXPECT IT TO BE

CARCINOGENIC.

Effects of Overexposure:MFR GAVE NO INFORMATION OF MSDS. Medical Cond Aggravated by Exposure:MFR GAVE NO INFORMATION OF MSDS.

First Aid:EYES:FLUSH WITH LARGE AMOUNTS OF WATER, IF IRRITATION PERSISTS GET MEDICAL ATTENTION. SKIN:WASH AREA W/SOAP & WATER. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. INHALATION:MOVE TO FRESH AIR. IF SIG NS/SYMPTOMS CONTINUE, GET MEDICAL ATTENTION. INGESTION :NO NEED FOR FIRST AID IS ANTICIPATED.

Flash Point Method:SCC
Flash Point:NONE
Autoignition Temp:Autoignition Temp Text:NONE
Lower Limits:NONFLAMMABLE
Upper Limits:NONFLAMMABLE
Extinguishing Media:NONFLAMMABLE
Fire Fighting Procedures: WEAR SELF-CONTAINED BREATHING APPARATUS & FULL PROTECTIVE CLOTHING. COOL FIRE EXPOSED CONTAINERS W/WATER.
Unusual Fire/Explosion Hazard:EXPOSURE TO EXTREME HEAT MAY CAUSE THERMAL DECOMPO
SITION.
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Spill Release Procedures: PROVIDE EXHAUST VENTILATION FOR LARGE SPILLS OR CONFINED SPACES. COLLECT SPILL W/ABSORBENT & PLACE IN APPROVED CONTAINER.

Neutralizing Agent:MFR GAVE NO INFORMATION OF MSDS.

Handling and Storage Precautions:STORE AT ROOM TEMPERATURE. DO NOT SMOKE WHILE HANDLING THIS PRODUCT.
Other Precautions:THIS PRODUCT IS FOR I
NDUSTRIAL USE ONLY. IT IS NOT INTENDED FOR USE AS A MEDICAL DEVICE OR DRUG.

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

Respiratory Protection: AVOID PROLONGED BREATHING OF VAPORS. USE NIOSH APPROVED SUPPLIED AIR RESPIRATOR TO AVOID BREATHING THERMAL DECOMPOSITION PRODUCTS. Ventilation: USE LOCAL EXHAUST TO KEEP EXPOSURE 1 (BUTYL ACETATE=1) Solubility in Water: NIL Appearance and Odor: COLORLESS ODORLESS LIQUID. Percent Volatiles by Volume: 100

Stability Indicator/Materials to Avoid:YES FINELY DIVIDED ACTIVE METALS, ALKALI AND ALKALINE EARTH METALS. Stability Condition to Avoid:HIGHLY STABLE UNLESS SEVERELY OVERHEATED. Hazardous Decomposition Products:MFR GAVE NO INFORMATION OF MSDS. Conditions to Avoid Polymerization:WILL NOT OCCUR.

Waste Disposal Methods:INCINERRATE IN THE PRESENCE OF COMBUSTIBLE MATERIAL IN A

N INDUSTRIAL OR COMMERCIAL FACILITY CAPEABLE OF HANDLING HALOGENATED WASTE. RECLAIM IF FEASIBLE. FOR MORE INFORMATION, CONTACT YOUR DISTRIBUTER.

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