

MINNESOTA MINING & MFG CO INDUSTRIAL CHEM PRODUCTS -- FC-72 FLUORINERT BRAND
ELECTRONIC LIQUID -- 6850-01-125-5270

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

Product ID:FC-72 FLUORINERT BRAND ELECTRONIC LIQUID

MSDS Date:01/24/2001

FSC:6850

NIIN:01-125-5270

Status Code:A

MSDS Number: CLJYH

=== Responsible Party ===

Company Name:MINNESOTA MINING & MFG CO INDUSTRIAL CHEM PRODUCTS

Address:3M CTR

City:ST PAUL

State:MN

ZIP:55144

Country:US

Info Phone Num:612-733-5454

Emerge

ncy Phone Num:800-364-3577

Resp. Party Other MSDS Num.:10-3789-4

CAGE:28112

=== Contractor Identification ===

Company Name:MINNESOTA MINING AND MFG CO PERFORMANCE 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

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

Ingred Name:PERFLUORO COMPOUNDS (PRIMARILY COMPOUNDS WITH 6 CARBONS)

CAS:86508-42-1

= Wt:100.

===== Hazards Identification =====

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:EYE CONTACT: CONTACT WITH THE EYES

DURING PRODUCT USE IS NOT EXPECTED TO RESULT IN SIGNIFICANT

IRRITATION. SKIN CONTACT: CONTACT WITH THE SKIN DURING PRODUCT USE

IS NOT EXPECTED TO RESULT IN SIGNIFICANT IRRITATION. INHALATION:

HEALTH EFFECTS FROM INHALATION ARE NOT EXPECTED UNLESS THE PRODUCT

IS OVER HEATED AND DECOMPOSITION OCCURS. IF SWALLOWED: INGESTION IS

NOT A LIKELY ROUTE OF EXPOSURE TO THIS PRODUCT.

Effects of Overexposure:EYE CONTACT: CONTACT WITH THE EYES DURING PRODUCT USE IS NOT EXPECTED TO RESULT IN SIGNIFICANT IRRITATION. SKIN CONTACT: CONTACT WITH THE EYES DURING PRODUCT USE IS NOT EXPECTED TO RESULT IN SIGNIFICA NT IRRITATION. INHALATION: HEALTH EFFECTS FROM INHALATION ARE NOT EXPECTED UNLESS THE PRODUCT IS OVER HEATED AND DECOMPOSITION OCCURS. IF SWALLOWED: INGESTION IS NOT A LIKELY ROUTE OF EXPOSURE TO TH IS PRODUCT.

===== First Aid Measures =====

First Aid:EYES: IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER. GET IMMEDIATE MEDICAL ATTENTION. SKIN: WASH AFFECTED AREA WITH SOAP & WATER. INHALATION: IF SIGNS/SYMPTOMS OCCUR, REMOVE PERSON TO FRESH AIR. IF SI GNS/SYMPTOMS CONTINUE, CALL A PHYSICIAN. INGESTION: NO NEED FOR FIRST AID IS ANTICIPATED.

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

Flash Point Method:SCC

Flash

Point:NONFLAMMABLE

Autoignition Temp:Autoignition Temp Text:NONFL

Lower Limits:NONFLAM

Upper Limits:NONFLAM

Extinguishing Media:NONFLAMMABLE.

Fire Fighting Procedures:WHEN NEEDED, WEAR FULL PROTECTIVE CLOTHING, INCLUDING HELMET, SELF-CONTAINED, POSITIVE PRESSURE OR PRESSURE DEMAND BREATHING APPARATUS, BUNKER COAT AND PANTS, BANDS AROUND ARMS, WAIST AND LEGS, FACE MASK, AND PROTECTIVE COVERING FOR EXPOSED AREAS OF THE HEAD.

Unusual Fire/Explosion Hazard:EXPOSURE TO EXTREME HEAT CAN GIVE RISE TO

THERMAL DECOMPOSITION. SEE SECTION 8, HEALTH HAZARD DATA. IF THE PRODUCT IS EXPOSED TO EXTREME CONDITION OF HEAT FROM MISUSE OR EQUIPMENT FAILURE, TOXIC DECOM POSITION PRODUCTS THAT INCLUDE HYDROGEN FLUORIDE AND PERFLUOROISOBUTYLENE CAN OCCUR.

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

Spill Release Procedures:OBSERVE PRECAUTIONS FROM OTHER SECTIONS. IN ACCORDANCE WITH GOOD INDUSTRIAL PRACTICE, PROVIDE EXHAUST VENTILATION FOR LA

RGE SPILLS OR IN CONFINED SPACES. COLLECT SPILLED
MATERIAL WITH AND ABSORBENT. PLACE IN AN APPROVED CONTAINER.

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

Handling and Storage Precautions:STORE UNDER NORMAL WAREHOUSE
CONDITIONS.

Other Precautions:NO SMOKING: SMOKING WHILE USING THIS PRODUCT CAN
RESULT IN CONTAMINATION OF THE TOBACCO AND/OR SMOKE AND LEAD TO THE
FORMATION OF THE HAZARDOUS DECOMPOSITION PRODUCTS MENTIONED IN THE
REACTIVITY DATA SECTION OF THIS MSDS.

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

Respiratory Protection:AVOID PROLONGED BREATHING OF VAPORS. IF THERMAL
DECOMPOSITION OCCURS: AVOID BREATHING OF THE DECOMPOSITION
PRODUCTS. SELECT ONE OF THE FOLLOWING NIOSH APPROVED RESPIRATORS
BASED ON AIRBORNE CONCENTRATION OF CONTAMINANTS AND IN ACCORDANCE
WITH OSHA REGULATIONS: HALF-MASK SUPPLIED AIR RESPIRATOR, FULL-FACE
SUPPLIED AIR RESPIRATOR.

Ventilation:USE WITH APPROPRIATE LOCAL
EXHAUST VENTILATION SUFFICIENT
TO MAINTAIN LEVELS OF THERMAL DECOMPOSITION PRODUCTS BELOW THEIR
EXPOSURE GUIDELINES.

Protective Gloves:GLOVES ARE NOT REQUIRED.

Eye Protection:WEAR SAFETY GLASSES WITH SIDE SHIELDS.

Work Hygienic Practices:NO SMOKING: SMOKING WHILE USING THIS PRODUCT
CAN RESULT IN CONTAMINATION OF THE TOBACCO &/OR SMOKE & LEAD TO THE
FORMATION OF THE HAZARDOUS DECOMPOSITION PRODUCTS MENTIONED IN THE
REACTIVITY DATA SECTION

Supplemental Safety and Health

PPE IS REQUIRED

IF PRODUCT IS EXPOSED TO EXTREME HEAT, BECAUSE TOXIC
DECOMPOSITION PRODUCTS (HF & PERFLUOROISOBUTYLENE) WILL BE RELEASED.

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

HCC:N1

Boiling Pt:>50.C, 122.F

B.P. Text:50-60C

Vapor Pres:CA. 232 MMHG CALC. @20C

Vapor Density:CA. 11.7

Spec Gravity:CA. 1.7 WATER=1

Viscosity:CA.0.42 CENTISTOKES @20C

Evaporation Rate & Reference:>1.0 BUTYL ACETATE=1

Solubility in Water:NIL

Appearance and Odor:COLORLESS, ODORLESS LIQUID

Pe

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

Stability Indicator/Materials to Avoid:YES

FINELY DIVIDED ACTIVE METALS, ALKALI AND ALKALINE EARTH METALS.

Hazardous Decomposition Products:IF THE PRODUCT IS EXPOSED TO EXTREME
CONDITION OF HEAT FROM MISUSE OR EQUIPMENT FAILURE, TOXIC
DECOMPOSITION PRODUCTS THAT INCLUDE HYDROGEN FLUORIDE AND
PERFLUOROISOBUTYLENE CAN OCCUR.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Toxicological Information:IF PRODUCT IS EXPOSED TO EXTREME HEAT, TOXIC
DECOMPOSITION PRODUCTS THAT INCLUDE HYDROGEN FLUORIDE &
PERFLUOROISOBUTYLENE CAN OCCUR. HYDROGEN FLUORIDE : ACGIH TLV= 3PPM
(AS FLUORIDE) AS A CEILING: OSH A PEL = 3 PPM OF FLUORIDE AS 8 HR
TWA & 6 PPM OF FLUORIDE AS SHORT TERM EXPOSURE LIMIT. THE ODOR
THRESHOLD FOR HF IS 0.04 PPM.

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

Waste Disposal Methods:AS A DISPOSAL ALTERNATIVE, INCINERATE IN THE
PRESENCE OF A COMBUSTIBLE MATERIAL IN AN INDUSTRIAL OR COMMERCIAL
FACILITY CAPABLE OF HANDLING HALOGENATED WASTE. RECLAIM IF
FEASIBLE. FOR INFORMATION ON PRODUCT RETURN, CONTACT YOUR
DISTRIBUTOR.

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

Federal Regulatory Information:THE INGREDIENTS IN THIS PRODUCT ARE
LISTED ON THE TSCA INVENTORY, EINECS, CDSL, ACIS AND MITI.

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vided with this information by the compiling agencies):

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