

MINNESOTA MINING & MFG CO INDUSTRIAL CHEM PRODUCTS -- FC-40 FLUORINERT BRAND
ELECTRONIC LIQ (SEE SUPPLEM FOR ID#) -- 6850-01-194-6614

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

Product ID:FC-40 FLUORINERT BRAND ELECTRONIC LIQ (SEE SUPPLEM FOR ID#)

MSDS Date:02/18/1994

FSC:6850

NIIN:01-194-6614

MSDS Number: BGQHG

=== Responsible Party ===

Company Name:MINNESOTA MINING & MFG CO INDUSTRIAL CHEM PRODUCTS

Addr

ess:3M CTR

City:ST PAUL

State:MN

ZIP:55144

Country:US

Info Phone Num:612-733-5454

Emergency Phone Num:612-733-5454/612-733-1110

Preparer's Name:(DOC #:10-3783-7)

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, (PRI

MARILY COMPOUNDS WITH 12 CARBONS)

CAS:86508-42-1

Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:ORAL LD50 (RAT) IS UNKNOWN.

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

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

Health Hazards Acute and Chronic:NO ADVERSE HEALTH EFFECTS EXPECTED

FROM EYE & SKIN CONTACT,INHAL EXPOSURE & INGEST.MATL NOT EXPECTED

TO PRODUCE SIGNIFICANT EYE IR

RIT.AFT MATL HAS BEEN IN USE CONTAMIN

MAY BE INTRO THAT MAY CAUSE EYE & SKIN IRRIT.NO HEALTH EFFECTS
FROM INHAL EXPECTED UNLESS MATL IS OVER HEATED & DECOMP
OCCURS.CONTAMIN MATL TOXIC IF ING

Explanation of Carcinogenicity:PRODUCT CONTAINS NO INGREDIENTS

CURRENTLY CLASSIFIED AS CARCINOGENIC BY NTP, IARC OR OSHA.

Effects of Overexposure:EYE:REDNESS, SWELLING, PAIN, AND TEARING.

SKIN:REDNESS, SWELLING, ITCHING. A 3M PRODUCT TOXICITY SUMMARY
SHEET IS AVAILABLE. IF PRODUCT IS

EXPOSED TO EXTREME CONDITION OF

HEAT FROM MISUSE OR EQUIPMENT FAILURE, TOXIC DECOMPOSITION PROUDCTS
THAT INCLUDE HYDROGEN FLUORIDE & PERFLUOROISOBUTYLENE CAN OCCUR.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYE:IMMED FLUSH EYES W/LG AMTS OF WATER. GET IMMED MED ATTN.

SKIN:WASH AFFECTED AREA W/SOAP & WATER. INHAL: IF SIGNS/SYMPTOMS
OCCUR REMOVE PERSON TO FRESH AIR. IF SIGNS/

SYMPTOMS CONTINUE CALL

PHYSICIA N. INGEST:DRINK TWO GLASSES OF WATER. CALL PHYSICIAN.

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

Flash Point Method:SCC

Flash Point:NONE

Extinguishing Media:NOT APPLICABLE PER MSDS. USE STANDARD FIREFIGHTING
PROCEDURES FOR SURROUNDING MATERIALS IN THE FIRE.

Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTH(HELMET,SCBA,+
PRESSURE OR PRESSURE DEMAND BREATHIN APPARATUS,BUNKER
COAT,PANTS,BANDS AROUND ARM/WAIST/LES,FACEMASK
,COVERING FOR HEAT)

Unusual Fire/Explosion Hazard:SEE HAZARDOUS DECOMPSITION SECTION FOR
PRODUCTS OF COMBUSTION.

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

Spill Release Procedures:OBSERVE PRECAUTIONS FROM OTHER SECTIONS. COVER
W/INORGANIC ABSORBENT MATERIAL. COLLECT SPILLED MATERIAL. PLACE IN
A CLOSED CONTAINER.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Prec

autions:DO NOT STORE CONTAINERS ON THEIR
SIDES. STORE AT ROOM TEMPERATURE. KEEP OUT OF THE REACH OF
CHILDREN.

Other Precautions:NO SMOKING WHILE HANDLING THIS MATERIAL. AVOID
PROLONGED BREATHING OF VAPORS. AVOID BREATHING OF THERMAL
DECOMPOSITION PRODUCTS.

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

Respiratory Protection:IF THERMAL DECOMPOSITION OCCURS, SELECT ONE OF
FOLLOWING NIOSH APPROVED RESP BASED ON AIRBORNE CONCENTRATION OF
CONTAMINANTS &

IAW OSHA REGS:HALF-MASK SUPPLIED AIR RESPIRATOR,
FULL-FACE SUPPLIED AIR R ESPIRATOR.

Ventilation:LOC EXHA VENTI.VENTI W/MIN CAPTURE VEL OF 50 LINEAR FT/MIN
FOR WORK @ OR ABOVE BP,100 LINEAR FT/MIN FOR INTERFERING AIR.

Protective Gloves:NOT REQUIRED AT ROOM TEMPERATURE.

Eye Protection:SAFETY GLASSES W/SIDE SHIELDS.

Other Protective Equipment:NONE SPECIFIED BY MANUFACTURER.

Work Hygienic Practices:AVOID EYE CONTACT. WASH HANDS AFTER HANDLING.

Supplemental Safety and Health

3M ID #:98-0211

-5594-4; 98-0204-0901-1; 98-0204-0904-5; 98-0211-3507-8;
98-0211-3972-4; 98-0211-3973-2; 98-0211-5502-7; 98-0204-0903-7.

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

HCC:N1

Boiling Pt:B.P. Text:311F,155C

Vapor Pres:3 @RT

Vapor Density:22.5 @RT

Spec Gravity:1.9

Viscosity:2.7SC @RT

Evaporation Rate & Reference: