

MILLER-STEPHENSON CHEMICAL CO, INC -- MS-122DF, PTFE RELEASE AGENT/DRY LUBRICANT --
9150-01-443-9003

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

Product ID:MS-122DF, PTFE RELEASE AGENT/DRY LUBRICANT

MSDS Date:05/01/2000

FSC:9150

NIIN:01-443-9003

Status Code:A

MSDS Number: CLBVG

=== Responsible Party ===

Company Name:MILLER-STEPHENSON CHEMICAL CO, INC

Address:55 BACKUS AVE/GEORGE WASHINGTON HIGHWAY

Box:950

City:DANBURY

State:CT

ZIP:06810

Country:US

Info Phone Num:203-743-4447

Emergency Phone Num:(800)424-9300

Preparer's Name:NOT PROVIDED

Chemtrec Ind/Phone:(800)424-9300

CAGE:18598

=== Contractor Identification ===

Company Name:MILLER-STEPHENSON CHEMICAL CO INC

Address:55 BACKUS AVE/GEORGE WASHINGTON HWY

Box:950

City:DANBURY

State:CT

ZIP:06810

Country:US

Phone:203-743-4447

Contract Num:SP0450-01-M-LC57

CAGE:18598

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

Ingred Name:1,

1-DICHLORO-1-FLUOROETHANE

CAS:1717-00-6

RTECS #:KI0997000

Minumum % Wt:77.

Maxumum % Wt:80.

Other REC Limits:NOT PROVIDED

OSHA PEL:NOT PROVIDED

ACGIH TLV:NOT PROVIDED

Ozone Depleting Chemical:2

Ingred Name:TELOMER OF TETRAFLUOROETHYLENE (CAS NUMBERS: 65530-85-0,
163440-89-9, 131324-06-6)

= Wt:1.

Other REC Limits:NOT PROVIDED

OSHA PEL:NOT PROVIDED

ACGIH TLV:NOT PROVIDED

Ingred Name:1,1,1,2-TETRAFLUOROETHANE

CAS:811-97-2

Minumum % Wt:18.

Maxumum % Wt:22.

Other REC Limits:NOT PROVIDED

OSHA PE

L:NOT PROVIDED

ACGIH TLV:NOT PROVIDED

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

LD50 LC50 Mixture:NOT PROVIDED

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

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

Health Hazards Acute and Chronic:INHALATION OF HIGH CONCENTRATIONS OF
VAPOR MAY BE HARMFUL AND MAY CAUSE HEART IRREGULARITIES,
UNCONSCIOUSNESS/DEATH. IT IS A SKIN IRRITANT, IS A MILD EYE
IRRITANT, AND IS NOT A SKIN SENSITIZER IN ANIM ALS.

A SINGLE

EXPOSURE OF 1,1-DICHLORO-1-FLUOROETHANE BY SKIN CONTACT CAUSED
DECREASED BODY WEIGHT, REDNESS OF SKIN, AND LIVER EFFECTS. SINGLE
EXPOSURE BY INHALATION TO HIGH DOSES CAUSED INACTIVITY; ALTERED
KIDNEY FUNCTION, CARDIAC SENSITIZATION, A POTENTIALLY FATAL
DISTURBANCE OF HEART RHYTHM ASSOCIATED WITH A HEIGHTENED
SENSITIVITY TO EPINEPHRINE. SINGLE EXPOSURE BY INGESTION TO HIGH
DOSES CAUS ED DECREASED BODY WEIGHT, LIVER EFFECTS

Explanation of Carcinogenicity:NON

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Effects of Overexposure:INHALATION OF HIGH CONCENTRATIONS OF VAPOR MAY BE HARMFUL AND MAY CAUSE HEART IRREGULARITIES, UNCONSCIOUSNESS/DEATH. IT IS A SKIN IRRITANT AND A MILD EYE IRRITANT. A SINGLE EXPOSURE OF 1,1-DICHLORO-1- FLUOROETHANE BY SKIN CONTACT CAUSED DECREASED BODY WEIGHT, REDNESS OF SKIN. SINGLE EXPOSURE BY INHALATION TO HIGH DOSES CAUSED CARDIAC SENSITIZATION. SINGLE EXPOSURE BY INGESTION TO HIGH DOSES CAUSED DECREASED BODY WEIGHT.

Medical Cond Aggravated by Exposure:NOT PROVIDED

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

First Aid:INHALATION: IMMEDIATELY REMOVE TO FRESH AIR. KEEP PERSONS CALM. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN. EYE: IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SKIN: FLUSH SKIN WITH WATER AFTER EXCESSIVE CONTACT. WASH CONTAMINATED CLOTHING BEFORE REUSE. ORAL: IF SWALLOWED, DO NOT INDUCE VOMITING, IMMEDIATELY GIVE TWO GLASSES OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CALL A PHYSICIAN.

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

Flash Point Method:TCC
Flash Point:NONE
Autoignition Temp:Autoignition Temp Text:ND
Lower Limits:7.4
Upper Limits:15.5
Extinguishing Media:WATER SPRAY OR FOG, FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
Fire Fighting Procedures:EVACUATE PERSONNEL TO SAFE AREA. USE WATER SPRAY OR FOG. WEAR SELF-CONTAINED BREATHING APPARATUS (SCBA).
Unusual Fire/Explosion Hazard:VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK. AVOID HIGH TEMPERATURES AND STATIC CHARGES. CONTAINERS MAY RUPTURE UNDER FIRE CONDITIONS. USE WATER SPRAY TO COOL CONTAINERS.

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

Spill Release Procedures:REVIEW FIRE AND EXPLOSION HAZARDS AND SAFETY PRECAUTIONS BEFORE PROCEEDING WITH CLEAN UP. U

SE APPROPRIATE

PERSONAL PROTECTIVE EQUIPMENT DURING CLEAN UP. VENTILATE AREA. DO NOT FLUSH TO SEWERS. COLLECT ON ABSORBENT MATERIAL AND TRANSFER TO DRUMS FOR RECOVERY OR DISPOSAL.

Neutralizing Agent:NOT RELEVANT

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

Handling and Storage Precautions:STORE IN A CLEAN DRY AREA. DO NOT HEAT ABOVE 125F. ROTATE STOCK TO SHELF LIFE OF ONE YEAR.

Other Precautions:AVOID BREATHING VAPORS OR MIST. AVOID CONTACT WITH EYE

S, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING.

FLUOROTELOMER SHOULD NOT BE HANDLED AROUND TOBACCO PRODUCTS. INHALATION OF VAPORS IN THE PRE SENCE OF TOBACCO PRODUCTS CAUSES POLYMER FUME FEVER.

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

Respiratory Protection:WHERE VENTILATION IS INADEQUATE USE LOCAL EXHAUST SYSTEM DESIGNED FOR FLAMMABLE GAS ATOMOSPHERE TO REMOVE VAPORS.

Ventilation:USE WITH SUFFICIENT VENTILATION TO KEEP EMPLOYEE EXPOSURE

BELOW THE RECOMMENDED EXPOSURE LIMIT.

Protective Gloves:MYLAR GLOVES

Eye Protection:CHEMICAL SPLASH GOGGLES

Other Protective Equipment:NOT PROVIDED

Work Hygienic Practices:DO NOT CONSUME FOOD, DRINK OR TOBACCO IN THE AREAS WHERE THEY MAY BECOME CONTAMINATED WITH THIS MATERIAL.

Supplemental Safety and Health

ABBREVIATION: N/A = NOT APPLICABLE. N/AV = NOT AVAILABLE. N/K = UNKNOWN. N/P = NOT PROVIDED. N/R = NOT RELEVANT. N/D = NOT DETERMINED. N/E = NOT ESTABLISHED. SCBA = SELF CONTAIN

D BREATHING APPARATUS.

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

HCC:V2

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:=32.2C, 90.F

B.P. Text:APPROX

Melt/Freeze Pt:M.P/F.P Text:NOT PROVIDED

Decomp Temp:Decomp Text:NOT PROVIDED

Vapor Pres:517 AT 21C

Vapor Density:4.0

Spec Gravity:1.23 G/CC

Viscosity:NOT PROVIDED

Evaporation Rate & Reference:>1 (CCL4=1)

Solubility in Water:NEGLIGIBLE

Appearance and Odor:WHITE MILKY LIQUID, FAINT ETHERAL ODOR

Percent Volatiles by Vol

ume:99

Corrosion Rate:NOT PROVIDED

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

Stability Indicator/Materials to Avoid:YES

STRONG ACIDS AND ALKALIS. FINELY POWDERED METALS SUCH AS AL, MG, ZN.
STORNG OXIDIZING AGENTS AND SOME DESICCANTS.

Stability Condition to Avoid:AVOID HEAT, SPARKS AND FLAME.

Hazardous Decomposition Products:THIS PRODUCT CAN BE DECOMPOSED BY HIGH
TEMPERATURES (FLAME, GLOWING METAL SURFACES, ETC.) FORMING HYDORGEN
FLUORIDE HYDROGEN CHLORIDE,
CARBON MONOXIDE AND CARBON DIOXIDE.

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

Toxicological Information:IN A TWO YEAR INHALATION STUDY,
1,1-DICHLORO-1-FLUOROETHANE, AT CONCENTRATIONS OF 5,000 PPM OR
15-20,000 PPM, PRODUCED AN INCREASED INCIDENCE OF BENIGN TESTICULAR
TUMORS IN RATS. THE NO EFFECT LEVEL F OR THIS STUDY WAS 1,500 PPM.
ANIMAL DATA SHOW DEVELOPMENTAL EFFECTS ONLY AT EXPOSURE LEVELS
PRODUCING OTHER TOXIC EFFECTS IN THE ADULT ANIMAL. REPR
ODUCTIVE

DATA ON RATS SHOW INTERFERENCE WITH REPRODUC TION ONLY AT LEVELS
WHICH PRODUCE OTHER TOXIC EFFECTS IN THE ADULT ANIMAL. TESTS IN
BACTERIAL AND MAMMALIAN CELL CULTURES ARE GENERALLY NEGATIVE. IT
HAS NOT PRODUCED GENETIC DAMAGE IN TESTS ON ANIMALS .

===== Ecological Information =====

Ecological:NOT PROVIDED

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

Waste Disposal Methods:COMPLY WITH FEDERAL, STATE AND LOCAL
REGULATIONS.

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

Transport Information:NOT PROVIDED

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

SARA Title III Information:PRODUCT HAZARD CATEGORIES: ACUTE HEALTH -
YES, CHRONIC HEALTH - NO, FIRE HAZARD - NO, REACTIVITY HAZARD - NO,
PRESSURE HAZARD - YES. LISTS: EXTREMELY HAZARDOUS SUBSTANCE - NO,
CERCLA HAZARDOUS SUBSTA NCE - NO, TOXIC CHEMICALS - NO.

Federal Regulatory Information:NOT P

ROVIDED

State Regulatory Information:NOT PROVIDED

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

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