

MILLER-STEPHENSON CHEMICAL CO INC. -- MS-143 FLUOROCARBON RELEASE AGENT --  
9150-01-078-9586

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

Product ID:MS-143 FLUOROCARBON RELEASE AGENT

MSDS Date:01/01/1990

FSC:9150

NIIN:01-078-9586

MSDS Number: BMWYF

=== Responsible Party ===

Company Name:MILLER-STEPHENSON CHEMICAL CO INC.

Address:GEORGE WASHINGTON HIGHWAY

Box:950

City:DANBURY

State:CT

ZIP:06810

Country:US

Inf

o Phone Num:203-743-4447

Emergency Phone Num:203-797-2212 OR 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

CAGE:18598

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

Ingred Name:1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE (FREON 113) (SARA  
III)

CAS:76-13-1

RTECS #:KJ4000000

Fraction by Wt: 97%

Other REC

Limits:NONE SPECIFIED  
OSHA PEL:1000PPM/1250STEL  
ACGIH TLV:1000PPM/1250STEL9192  
Ozone Depleting Chemical:1

Ingrid Name:TELOMERS OF TETRAFLUOROETHYLENE  
CAS:79070-11-4  
Fraction by Wt: 3%  
Other REC Limits:NONE SPECIFIED

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:INHALATION-VAPORS ARE HEAVIER THAN AIR  
& CAN REDUCE OXYGEN FOR BREATHING. EXCESSIVE INHALATION OF  
PYROLIZED FUMES CAN CAUSE FLU LIKE "POLYMER FUME FEVER".  
SKIN-CONTACT WILL RESULT IN IRRITATION. EYE-CONTACT WILL CAUSE  
IRRITATION. ORAL-ALTHOUGH ORAL TOXICITY IS LOW, INGESTION IS TO BE  
AVOIDED.  
Explanation of Carcinogenicity:THIS COMPOUND CONTAINS NO INGREDIENTS AT  
CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT  
CARCINOGENS.  
Effects of Overexposure:INHALATION-EXCESSIVE INHALATION CAN CAUSE  
DIZZINESS, NARCOSIS, ANESTHESIA, CARDIAC IRREGULARITIES,  
UNCONSCIOUSNESS OR DEATH. SKIN-CONTACT WILL CAUSE DEFATTING OF THE  
SKIN.  
Medical Condition Aggravated by Exposure:CARDIOVASCULAR DISEASE.

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

First Aid:INHALATION-REMOVE TO FRESH AIR. IF NEEDED, PERFORM CPR OR  
GIVE OXYGEN. DO NOT GIVE EPINEPHRINE OR SIMILAR DRUGS AS SUCH DRUGS  
MAY INDUCE VENTRICULAR ARRHYTHMIA. EYES-FLUSH EYE WITH PLENTY OF  
WATER AT LEAST 15 MIN. CONTACT PHYSICIAN. SKIN-FLUSH WITH WATER.  
SEE PHYSICIAN IF IRRITATION IS PRESENT. ORAL-DO NOT INDUCE  
VOMITING. GIVE TWO GLASSES OF WATER OR ACTIVATED CHARCOAL SLURRY.

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

Flash Point Method:TOC  
Flash Point:NONE  
Extinguishing Media:"ALCOHOL" FOAM. DRY POWDER (SAND OR MET-L-X),  
CARBON DIOXIDE, DRY CHEMICAL.  
Fire Fighting Procedures:EVACUATE PERSONNEL TO SAFE AREA. DECOMPOSITION  
MAY FORM TOXIC COMPOUNDS. SELF CONTAINED BREATHING APPARATUS

MAY BE  
REQUIRED IF DRUM RUPTURE & CONTENTS SPILLS.  
Unusual Fire/Explosion Hazard:DRUMS MAY RUPTURE UNDER FIRE.  
DECOMPOSITION MAY OCCUR. AIR-BORNE SOLID PARTICLES MAY BE GENERATED  
ABOVE 216C. AT 260-290C FORMS TOXIC FLUORINE COMPOUNDS.

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

Spill Release Procedures:VENTILATE AREA. VAPORS TEND TO CONCENTRATE IN  
LOW AREAS. REVIEW FIRE & EXPLOSION HAZARD & SAFETY PRECAUTIONS  
BEFORE PROCEEDING WITH CLEAN UP. WIPE UP  
SPILL WITH ABSORBENT  
MATERIAL & DISPOSE TO LANDFIL L. WASH HANDS WITH SOAP & WATER.

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

Handling and Storage Precautions:DO NOT STORE NEAR SOURCES OF HEAT  
ABOVE 125F/52C. DO NOT STORE OR CONSUME FOOD, DRINK OR TOBACCO IN  
AREA WHERE IT HAS BECOME CONTAMINATED WITH PRODUCT  
Other Precautions:HANDLING-FREEZING WILL AFFECT THE PHYSICAL CONDITION  
BUT WILL NOT DAMAGE. THAW & MIX BEFORE USING. ROTATE STOCK TO SHELF  
LI  
FE OF 1 YEAR\*\*TO PREPARE SLURRY, SUSPEND 50 G ACTIVATED CHARCOAL  
IN 400 ML WA TER. SHAKE, GIVE 5 ML/KG OR 260 ML.

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

Respiratory Protection:NONE SPECIFIED BY MANUFACTURER.  
Ventilation:USE LOCAL EXHAUST, IF LARGE AMOUNTS ARE RELEASED.  
MECHANICAL VENTILATION SHOULD BE USED IN LOW PLACES.  
Protective Gloves:VINYL OR NEOPRENE GLOVES  
Eye Protection:CHEMICAL SPLASH GOGGLES  
Other Protective Equipment:PRUDENT USAGE WOULD NOT REQUI  
RE EYE AND SKIN  
PROTECTION.  
Work Hygienic Practices:DO NOT CONSUME FOOD, DRINK OR TOBACCO IN AREAS  
WHERE THEY MAY BECOME CONTAMINATED WITH THIS MATERIAL.  
Supplemental Safety and Health  
NOTE TO PHYSICIAN: BECAUSE OF A POSSIBLE INCREASED RISK OF ELICITING  
CARDIAC DYSRHYTHMIAS, CATECHOLAMINE DRUGS, SUCH AS EPINEPHRINE,  
SHOULD BE CONSIDERED ONLY AS A LAST RESORT IN LIFE THREATENING  
EMERG ENCIES.

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

HCC:T6  
Boiling

Pt:=47.8C, 118.F  
Vapor Pres:334 MMHG  
Vapor Density:2.9 @77F  
Spec Gravity:1.6  
pH:7  
Evaporation Rate & Reference:1 (N-BUTYL ACETATE=1)  
Solubility in Water:NEGLIGIBLE  
Appearance and Odor:FORM: DISPERSION. COLOR: WHITE. APPEARANCE: MILKY.  
ODOR: FAINT SOLVENT.  
Percent Volatiles by Volume:97%

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

Stability Indicator/Materials to Avoid:YES  
FINELY DIVIDED REACTIVE METALS.  
Stability Condition to Avoid:DO NOT USE NEAR OPEN FLAMES OR  
RED HOT  
SURFACES. DO NOT SMOKE WITH CONTAMINATED TOBACCO OR HANDS.  
Hazardous Decomposition Products:INTENSE HEAT MAY CAUSE DECOMPOSITION  
WITH EMISSION OF HALOGEN ACIDS, PHOSGENE IN SMALLER AMOUNTS &  
PERFLUOROCARBONS.

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

Waste Disposal Methods:RECLAIM SOLVENT BY FILTRATION & DISTILLATION.  
DO NOT FLUSH TO SURFACE WATER OR SEWER SYSTEM. DISPOSAL SERVICE TO  
LANDFILL IS APPROPRIATE AS FEDERAL, STATE AND LOCAL REGUL  
ATIONS  
PERMIT. CONSULT LOCAL WASTE DISPOSAL CONTRACTOR. DO NOT BURN.

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