

ALDRICH CHEMICAL CO INC. -- 1,1,2-TRICHLOROTRIFLUOROETHANE, 99+% -- 6850-00-681-5688  
===== Product Identification =====

Product ID:1,1,2-TRICHLOROTRIFLUOROETHANE, 99+%

MSDS Date:02/08/1994

FSC:6850

NIIN:00-681-5688

MSDS Number: BVHDT

=== Responsible Party ===

Company Name:ALDRICH CHEMICAL CO INC.

Address:1001 W. ST. PAUL AVE

Box:355

City:MILWAUKEE

State:WI

ZIP:53201

Country:US

Info Phone Num:414-2

73-3850/FAX -4979

Emergency Phone Num:414-273-3850

CAGE:60928

=== Contractor Identification ===

Company Name:ALDRICH CHEMICAL CO INC

Address:1001 WEST ST PAUL AVE

Box:355

City:MILWAUKEE

State:WI

ZIP:53233

Country:US

Phone:414-273-3850

CAGE:60928

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

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

CAS:76-13-1

RTECS #:KJ4000000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1000PPM

ACGIH TLV:1000PPM/1250ST

EL9394

Ozone Depleting Chemical:1

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

LD50 LC50 Mixture:ORAL LD50 (RAT) IS 43 MG/KG

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

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

Health Hazards Acute and Chronic:MAY BE HARMFUL BY INHALATION,  
INGESTION, OR SKIN ABSORPTION. MAY CAUSE IRRITATION.

Explanation of Carcinogenicity:NOT CARCINOGENIC.

Effects of Overexposure:PROLONGED EXPOSURE CAN CAUSE: NARCOTIC EFFECTS

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH  
COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MIN WHILE REMOVING  
CONTAMINATED CLOTHING & SHOES. IF INHALED, REMOVE TO FRESH AIR. IF  
NOT BREATHING GIV E ARTIFICIAL RESPIRATION. IF BREATHING IS  
DIFFICLUT, GIVE OXYGEN. IF SWALLOWED, WASH OUT MOUTH WITH WATER  
PROVIDED PERSON IS CON  
SIOUS. CALL A PHYSICIAN. WASH CONTAMINATED  
CLOTHING BEFORE REUSE.

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

Flash Point:NONE

Autoignition Temp:Autoignition Temp Text:1256F

Extinguishing Media:USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING  
FIRE CONDITIONS.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS AND  
PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

Unusual Fire/Explosion Hazard:EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

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

Spill Release Procedures:EVACUATE AREA. WEAR SELF-CONTAINED BREATHING  
APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES. ABSORB ON SAND OR  
VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR DISPOSAL. VENTILATE  
AREA AND WASH SPILL S ITE AFTER MATERIAL PICKUP IS COMPLETE.

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

Handling and Storage Precautions:STORE IN A COOL DRY PLACE. KEEP  
TIGHTLY CLOSED.

WASH THOROUGHLY AFTER HANDLING. DO NOT GET IN EYES,  
ON SKIN, ON CLOTHING. DO NOT BREATHE VAPOR.

Other Precautions: THIS MATERIAL CAN REACT VIOLENTLY WITH ACTIVE METALS  
SUCH AS SODIUM, POTASSIUM, CALCIUM, BARIUM & WITH FINELY DIVIDED  
METALS SUCH AS ALUMINUM MAGNESIUM, ZINC & BERYLLIUM. CONTACT WITH  
MAGNESIUM ALLOYS WITH MORE THAN 2% MAGNESIUM MAY DECOMP.

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

Respiratory Protection: WEAR APPROPRIATE NIOSH/MSHA-APPROVED  
RESPIRATOR.

Ventilation: MECHANICAL EXHAUST REQUIRED.

Protective Gloves: CHEMICAL-RESISTANT GLOVES.

Eye Protection: SAFETY GOGGLES.

Other Protective Equipment: OTHER PROTECTIVE CLOTHING. SAFETY SHOWER AND  
EYE BATH.

Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

NONE

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

HCC: N1

Boiling Pt: B.P. Text: 117F, 47C

Melt/Freeze Pt: M.P/F.P Text: -31F, -35C

Vapor Pres: 5.5 PSI

Vapor Density: 2.39

Spec Gr

avity: 1.570

Appearance and Odor: COLORLESS LIQUID.

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

Stability Indicator/Materials to Avoid: YES

FINELY POWDERED METALS, ALUMINUM, MAGNESIUM, ZINC. REACTS VIOLENTLY  
WITH SODIUM, POTASSIUM.

Stability Condition to Avoid: NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products: TOXIC FUMES OF: CARBON MONOXIDE,  
CARBON DIOXIDE, HYDROGEN CHLORIDE GAS, HYDROGEN FLUORIDE.

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

=====

Waste Disposal Methods: DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.