

TECHNICAL CHEMICAL CO. -- TF SOLVENT R-113 -- 6850-00-935-1082

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

Product ID:TF SOLVENT R-113

MSDS Date:07/05/1988

FSC:6850

NIIN:00-935-1082

MSDS Number: BLWCH

=== Responsible Party ===

Company Name:TECHNICAL CHEMICAL CO.

Address:10737 SPANGLER ROAD

Box:20098

City:DALLAS

State:TX

ZIP:75220-7101

Country:US

Info Phone Num:214-556-1421

Emergency Phone Num:214-556-1421

Preparer's Name:KELLY BERRIOCHOA

CAGE:8X792

=== Contractor Identification ===

Company Name:TECHNICAL CHEMICAL COMPANY

Address:10737 SPANGLER ROAD

Box:20098

City:DALLAS

State:TX

ZIP:75220-7101

Country:US

Phone:972-556-1421

CAGE:8X792

===== 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: 100%

Other REC Limits:NONE SPECIFIED

OSHA PEL:1000PPM/1250STEL

ACGIH TL

V:1000PPM/1250STEL9192
Ozone Depleting Chemical:1

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

LD50 LC50 Mixture:LD 50 ORAL RAT 43000 MG/KG

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

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

Health Hazards Acute and Chronic:INHALATION: VAPOR IS HEAVIER THAN AIR AND CAN CAUSE SUFFOCATION BY REDUCING OXYGEN AVAILABLE FOR BREATHING. BREATHING HIGH CONCENTRATIONS OF VAPOR MAY CAUSE LIGHT-HEADEDNESS, GIDDINESS, SHORTNESS OF BREATH, AND MAY LEAD TO NARCOSIS, CARDIAC IRREGULARITIES, UNCONSCIOUSNESS OR DEATH. SKIN/EYE: LIQUID CAN DEFAT TISSUE.

Explanation of Carcinogenicity:FREON 113 IS NOT LISTED AS A CARCINOGEN BY IARC, NTP OR OSHA.

Effects of Overexposure:BREATHING HIGH CONCENTRATIONS OF VAPOR MAY CAUSE LIGHT-HEADEDNESS, GIDDINESS, SHORTNESS OF BREATH, AND MAY LEAD TO NARCOSIS, CARDIAC IRREGULARITIES, UNCONSCIOUSNESS OR DEATH. LIQUID IS NOT CORROSIVE OR AN IRRITANT, BUT CAN CAUSE DEFATTING OF TISSUE.

Medical Cond Aggravated by Exposure:SKIN DISEASE - FREON 113 IS A DEFATTING AGENT AND CAN CAUSE DERMATITIS ON PROLONGED EXPOSURE. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS AGENT.

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

First Aid:INHALATION: REMOVE TO FRESH AIR, CALL A PHYSICIAN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. EYE/SKIN: FLUSH WITH WATER FOR 15 MINUTES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. ORAL: GET MEDICAL ATTENTION. DO NOT INDUCE VOMITING AS THE HAZARD OF ASPIRATING INTO THE LUNGS IS TOO GREAT.

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

Flash Point Method:TOC
Flash Point:NONE
Lower Limits:NONE
Upper Limits:NONE

Extinguishing Media:NON-FLAMMABLE. USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.
Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE CLOTHING

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

Flash Point Method:TOC

Flash Point:NONE

Lower Limits:NONE

Upper Limits:NONE

Extinguishing Media:NON-FLAMMABLE. USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE CLOTHING

PROTECTIVE EQUIPMENT AND A

FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:CONTAINERS MAY RUPTURE UNDER FIRE CONDITIONS. COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.

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

Spill Release Procedures:VENTILATE AREA. DO NOT FLUSH INTO SEWERS. COLLECT ON ABSORBENT MATERIAL AND TRANSFER TO STEEL DRUMS FOR

RECOVERY OR DISPOSAL. COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS ON REPORTING RELEASES.

Neutralizing Agent:NONE

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

Handling and Storage Precautions:STORE IN A CLEAN, COOL, DRY AND WELL-VENTILATED AREA OF LOW FIRE RISK. PROTECT CONTAINERS FROM PHYSICAL DAMAGE AND KEEP CLOSED.

Other Precautions:AVOID BREATHING VAPOR, LIQUID CONTACT WITH EYES, SKIN OR CLOTHING. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUES/VAPORS, FOLLOW THE SAME PROCEDURE AS IF THEY WERE FULL.

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

Respiratory Protection:NONE REQUIRED FOR ADEQUATELY VENTED WORK SITUATIONS. FOR ACCIDENTAL OR NON-VENTILATED SITUATIONS, USE A SELF-CONTAINED BREATHING APPARATUS OR SUPPLIED-AIR RESPIRATOR, APPROVED BY NIOSH.

Ventilation:PROVIDE LOCAL EXHAUST AT FILLING ZONES AND OTHER OPERATING SPACES WHERE LEAKAGE IS PROBABLE. MECHANICAL FOR OTHER.

Protective Gloves:BU

TYL RUBBER, PVA OR NEOPRENE

Eye Protection:CHEMICAL SPLASH GOGGLES

Other Protective Equipment:USE IMPERVIOUS CLOTHING IF THERE IS REPEATED OR PROLONGED CONTACT WITH LIQUID.

Work Hygienic Practices:REMOVE AND WASH CLOTHING PROMPTLY UPON CONTAMINATION.

Supplemental Safety and Health

NONE

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

HCC:N1

Boiling Pt:B.P. Text:118F,48C

Melt/Freeze Pt:M.P/F.P Text:31F FZ PT

Vapor Pres:334 @ 77F

Vapor Density:6.46

Spec Gravity:1.574

Evaporation Rate & Reference:0.1 (CCL4 = 1)

Solubility in Water:0.02% @ 77F

Appearance and Odor:CLEAR LIQUID. SLIGHT ETHEREAL ODOR.

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

Stability Indicator/Materials to Avoid:YES

CHEMICALLY ACTIVE METALS SUCH AS ALUMINUM, ZINC, BERYLLIUM, STRONG CAUSTICS AND OXIDIZERS.

Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products:DECOMPOSED BY HIGH TEMPERATURES (OPEN FLAMES, GLOWING METAL SURFACES, ETC.) FORMING HYDROCHLORIC AND HYDROFLUORIC ACIDS.

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

Waste Disposal Methods:COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS. REMOVE TO A PERMITTED WASTE DISPOSAL FACILITY. EPA HAZARDOUS WATES NOS. F001 AND F002 MAY APPLY TO WASTE MATERIALS.

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.