



1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: MS-182
Skin Degreaser

Product Use: Skin Degreaser Solvent

MANUFACTURER/DISTRIBUTOR:

Miller-Stephenson Chemical
55 Backus Ave.
Danbury, Conn. 06810 USA
(203) 743-4447

Emergency Phone Number:
(800) 424-9300

2. HAZARDS IDENTIFICATION

GHS Hazard classification

Not a dangerous substance or mixture according to GHS.

GHS Label elements:

Pictogram: not required

Signal word: not required

Other hazards which do not result in classification or are not covered by GHS

Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing.

Prolonged skin contact may defat the skin and produce dermatitis.

Effects of breathing high concentrations of vapor may include: May cause cardiac arrhythmia

Misuse of intentional inhalation abuse may lead to death without warning.

3. INGREDIENTS

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
Trichlorotrifluoroethane	76-13-1	100

4. FIRST AID MEASURES

Inhalation: If inhaled, immediately remove to fresh air. Keep person calm. If not breathing, give artificial respiration. Use oxygen as required, provided a qualified operator is available. DO NOT give epinephrine (adrenaline). Get medical attention immediately.

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, lifting eye lids occasionally. Call a physician.

Skin: Flush skin with water until all chemical is removed. Wash contaminated clothing before reuse.

Oral: If swallowed, DO NOT induce vomiting unless instructed to do so by a physician. DO NOT give stimulants. Get medical attention immediately.

Notes to Physician:

THIS MATERIAL MAY MAKE THE HEART MORE SUSCEPTIBLE TO ARRHYTHMIAS. Catecholamines such as adrenaline, epinephrine, and other compounds having similar effects, should be reserved for emergencies and then used only with special caution. Treatment of overexposure should be directed at the control of symptoms and the clinical conditions.

5. FIRE FIGHTING MEASURES

Flash Point: None

Method: Pensky Marten Closed Cup (ASTM D 93)

Autoignition Temperature: 770°F (410°C)

Flammable Limits in Air, % by Vol.: None

Fire and Explosion Hazards: Use water spray or fog to cool containers. Decomposition may occur.

Extinguishing Media: Use media appropriate for surrounding material.

Fire Fighting Instruction: Evacuate personnel to a safe area. Wear self-contained breathing apparatus (SCBA) and full protective equipment is required if a large amount of material is spilled. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition. Product will decompose at temperatures above 482°F (250°C). Decomposition products include hydrofluoric acid, hydrochloric acid, and carbonyl halides. Contact with certain finely divided metals may cause exothermic reaction and/or explosive combinations.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Other Release: Immediately evacuate the area and provide maximum ventilation. Try to eliminate all ignition sources. Unprotected personnel should move upwind from spill. Only personnel equipped with proper respiratory and eye/skin protection should be permitted in the area. Dike area to contain the spill. Take precautions as necessary to prevent contamination of ground and surface waters. For large spills, pump solvent into appropriate containers. For small spills, recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbent into closed DOT approved containers for disposal. After all visible traces have been removed, thoroughly wet vacuum the area. DO NOT flush into sewer.

7. HANDLING AND STORAGE

Handling: Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

Storage Conditions: Store in a clean, dry area. Do not store sources of heat, in direct sunlight or where temperatures exceed 120F/49C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Use only with adequate ventilation. Vapors are heavier than air posing a hazard of asphyxia if they are trapped in enclosed or low places. Mechanical ventilation should be used in these areas.

Eye Protection: Wear safety glasses or coverall chemical splash goggles.

Respiratory Protection: Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH approved respiratory protection.

Skin Protection: Where there is potential for skin contact have available and wear as appropriate impervious gloves, such as PVA and neoprene.

<u>Exposure Limits:</u>	<u>TLV (ACGIH)</u>	<u>PEL (OSHA)</u>
Trichlorotrifluoroethane	1000 ppm TWA	1000 ppm TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 118°F/48°C

Percent Volatile by Volume: 100

Density: 1.47 g/cc @ 70°F/21°C

Vapor Pressure: 5.6 psia @ 70°F/21°C

Vapor Density (Air=1): 6.5

Solubility in H₂O: 0.31% @ 70°F/21°C

pH Information: Neutral

Evaporation Rate (Ether=1): >1

Form: Liquid

Appearance: Clear & Colorless

Color: Colorless

Odor: Faint ethereal and sweetish odor

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Material and Conditions to Avoid: Strong alkali or alkaline earth metals. Finely powdered metals. Strong oxidizing agents.

Decomposition: Hydrochloric and hydrofluoric acids and possibly carbonyl halides, such as phosgene.

Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Immediate (Acute) Effects:

Acute Inhalation:

Rat 2 hour LC50: 110,000 ppm

Mice – 95,000 ppm

Exposure of dogs to levels of 5,000 ppm and greater resulted in increased sensitivity of the heart to adrenalin.

Delayed (Subchronic and Chronic) Effects:

Results of a 2 year chronic inhalation study on rats exposed to 2,000, 10,000 and 20,000 ppm confirmed the low order of toxicity of this material. This, and the results of other studies available in literature, have shown no evidence of carcinogenicity, mutagenicity, or teratogenicity in animal studies and in human experience.

Other Data:

Not mutagenic in in vivo or in vitro tests.

Not a developmental toxin.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:

Daphnia and Fish – LC50: 1,250 ppm/96 hrs

Biodegradability: Minimal

13. DISPOSAL CONSIDERATIONS

RCRA

Virgin (unused) is not considered a RCRA Hazardous Waste. However, all unused product should be disposed of properly.

If used as a solvent the RCRA number is F002.

OTHER DISPOSAL CONSIDERATIONS:

Spent (used) Trichlorotrifluoroethane used as a solvent is a hazardous waste: F002

Proper DOT Shipping Name for the waste solvent is:

Hazardous Waste Liquid, n.o.s. (trichlorotrifluoroethane), 9, NA3082, III

All spent material must be disposed of in accordance with all applicable Federal and State RCRA Regulations.

This information offered here is for the product as shipped. Use and/or alternations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and proper disposal method.

14. TRANSPORT INFORMATION

U.S. DOT

Not Regulated

IATA

Not Regulated

IMDG

Not Regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA: All ingredients are listed in TSCA inventory.

SARA/TITLE III HAZARD CATEGORIES:

Product Hazard Categories:

Acute Health	- Yes
Chronic Health	- No
Fire Hazard	- No
Reactivity Hazard	- No
Pressure Hazard	- No

16. OTHER INFORMATION

NPCA-HMIS Ratings:

Health	- 1
Flammability	- 0
Reactivity	- 0

Personal Protective rating to be supplied by user depending on the conditions.

FOR INDUSTRIAL USE ONLY

REVISION DATE: APRIL 2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.