



1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: MS-725
MS-725M
DPMS T0120A2
ODC-Free Heavy Duty Solvent & Flux Remover

Product Use: Cleaning Solvent & Flux Remover
for electronic assemblies.

MANUFACTURER/DISTRIBUTOR:

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

Emergency Phone Number:
(800) 424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

Flammable aerosol: Category 2
Serious Eye Damage/Irritation: Category 2A.
Specific Target Organ Toxicity (central nervous system): Category 3.

Label elements:

Signal word

Warning

Pictogram



Hazard Statements

Flammable aerosol
Causes serious eye irritation.
May cause drowsiness and dizziness

Precautionary Statements

Keep away from heat/sparks/open flames/hot surfaces – No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye protection, protective clothing, protective gloves, and face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F
Dispose of contents/container to an approved waste disposal plant.

Other Hazards

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.

3. INGREDIENTS

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
1,1,1,2-Tetrafluoroethane	811-97-2	18 – 22
Isopropyl Alcohol	67-63-0	8 – 12
1,2-Trans-dichloroethylene	156-60-5	33 – 37
Methyl Nonafluorobutyl Ether	163702-07-6	6 – 30
Methyl Nonafluoroisobutyl Ether	163702-08-7	6 – 30

4. FIRST AID MEASURES

Inhalation: Remove patient to fresh air. If not breathing, give artificial respiration. Give oxygen as necessary, if qualified personnel is available. Get medical attention if necessary.

Eye: Flush with large amounts of water for at least 15 minutes, lifting eyelids until no evidence of the chemical remains. Get medical attention. Remove contact lenses, if present and easy to do. Continue to rinse.

Skin: Wash skin with plenty of water for at least 15 minutes. Wash contaminated clothing before use. Get medical attention if necessary.

Oral: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician.

Most important symptoms/effects, acute and delayed: Causes serious eye irritation. May cause skin irritation. Repeated exposure may cause skin dryness and cracking.

5. FIRE FIGHTING MEASURES

Flammability: This product is flammable.

Test Method: Ignition distance test and Enclosed space ignition test

Suitable Extinguishing Media: Alcohol resistant foam, Dry chemical, Carbon dioxide (CO₂)

Unsuitable extinguishing media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special hazards: Hazardous decomposition can occur when exposed to extreme heat. Hazardous decomposition products are Carbon monoxide, Carbon dioxide, Hydrogen Chloride, Hydrogen Fluoride, Perfluoroisobutylene (PFIB), Toxic vapor, Gas, Particulate.

Special Fire Fighting Instruction: In the event of fire, wear self-contained breathing apparatus and other personal protective equipment. Exposure to decomposition products may be a hazard to health.

Further information: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Evacuate personnel to safe areas. Cool containers/tanks with water spray or fog. Do not allow run-off from the fire-fighting to enter drains or water sources. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel): Evacuate personnel to safe area. Ventilate area, especially low or enclosed places where heavy vapors might collect. If using mechanical ventilation to disperse the vapors: Warning! The motor could be an ignition source and cause flammable gases or vapors in the spill area to burn. In case of insufficient ventilation, wear suitable respiratory equipment. Use appropriate personal protection equipment.

Environmental precautions: Prevent material from entering sewers, waterways, or low areas. Should not be released into the environment. Do not allow contact with soil, surface or ground water.

Spill Cleanup: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and put the material into a convenient waste disposal container for disposal according to local regulations.

7. HANDLING AND STORAGE

Handling: Use in a well-ventilated area to avoid breathing vapors. Vapors are heavier than air and accumulate in low areas. Use only with adequate ventilation. Use appropriate respiratory protection when ventilations is inadequate. When using do not eat, drink, or smoke. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Avoid release to the environment. Keep away from heat, sparks, and open flame. Take measures to prevent the buildup of electrostatic charge.

Storage Conditions: Store in a clean, cool and dry area that is well-ventilated. Do not store sources of heat, in direct sunlight or where temperatures exceed 120°F/49°C. Do not pierce or burn, even after use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Limits:</u>	<u>TWA (ACGIH)</u>	<u>TWA (OSHA)</u>
Isopropyl Alcohol	200 ppm	400 ppm
1,2-Trans-Dichloroethylene	200 ppm	200 ppm
Methyl Nonafluorobutyl Ether	Not Established	Not Established
Methyl Nonafluoroisobutyl Ether	Not Established	Not Established

Respiratory Protection: Avoid breathing vapors, mists or spray. Use with sufficient ventilation especially for enclosed or low places. If using mechanical ventilation to disperse the vapors: Warning! The motor could be an ignition source and cause flammable gases or vapors in the spill area to burn. In poorly ventilated areas, use an approved self-contained breathing apparatus.

Eye Protection: Avoid eye contact. Use chemical goggles or safety glasses with side shields.

Skin Protection: Avoid contact with skin. Use gloves impervious to this material when prolonged or frequently repeated contact occurs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N.A.

Percent Volatile by Volume: 100%

Density: 1.22 gm/cc at 70°F/21°C

Vapor Pressure: 450 mmHg

Vapor Density (Air=1): >1

Solubility in H₂O: Slight

pH Information: Neutral

Evaporation Rate (CC14=1): N.A.

Form: Aerosol

Appearance: Clear

Color: Clear-Colorless

Odor: Slight alcohol odor

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Chemical stability: No decomposition if stored and applied as directed.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Material and Conditions to Avoid: Heat, sparks, and flames. Exposure to elevated temperatures, direct sunlight. Avoid static discharge. Strong acids, Strong bases and Strong oxidizers.

Decomposition: This product can be decomposed by high temperatures (flame, glowing metal surfaces, etc.) forming Carbon monoxide, Carbon dioxide, Hydrogen Fluoride, Hydrogen Chloride, Perfluoroisobutylene (PFIB), Toxic vapors and gases.

11. TOXICOLOGICAL INFORMATION

Trans-1,2-Dichloroethylene

Oral: LD50: 7902 mg/kg in rats

Dermal: LD50: > 5,000 mg/kg in rabbits

Inhalation: 4 hour LC50: 95.6 mg/l in rats

Target Organs: Central nervous system depression

Skin Corrosion/Irritation: Minimal irritation in Rabbits

Serious Eye Damage/Irritation: Moderate irritation in Rabbits

Sensitization Skin: Data not available or insufficient for classification

Sensitization Respiratory: Data not available or insufficient for classification

Germ Cell Mutagenicity: In vitro and In vivo - Not Mutagenic

Carcinogenicity: Data not available or insufficient for classification

Reproductive and/or Developmental Toxicity: Some positive developmental data exist by inhalation in rats, but the data are not sufficient for classification.

Repeated Dose Toxicity: In Rats, some positive data exists, on the following organs: kidney and/or bladder, blood and liver, but not sufficient for classification.

Single Dose Toxicity: In Human, by inhalation some positive data exists causing central nervous system depression and respiratory irritation, but not sufficient for classification. Ingestion in rats on the central nervous system depression may cause drowsiness or dizziness.

Aspiration Hazard: Not an aspiration hazard

Isopropyl Alcohol

Acute Toxicity

Ingestion: LD50, Rat 4,700 - 5,800 mg/kg.

Skin Absorption: LD50, Rabbit 13,000 mg/kg

Inhalation: LC50, Rat, 16,000 ppm

Skin Corrosion/Irritation: Mild skin irritation in rabbits.

Serious Eye Irritation/ Eye Irritation: Eye irritation, 24 h, in rabbits.

Skin Sensitization: No data available

Respiratory Sensitization: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity: Not classified based on available information.

Reproductive toxicity: No data available

STOT-single exposure: Inhalation, Oral – May cause drowsiness and dizziness.

STOT-repeated exposure: No data available

Aspiration toxicity: No data available

12. ECOLOGICAL INFORMATION

Trans-1,2-Dichloroethylene

96 hour LC50 in Lepomis macrochirus (Bluegill sunfish): 135 mg/l
48 hour EC50 in Daphnia magna (Water flea): 220 mg/l
72 hour EC50 in Pseudokirchneriella subcapitata (Green algae): 36.36 mg/l

Biodegradability: Not readily biodegradable. Method: OECD Test Guideline 301D

Isopropyl Alcohol

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Aquatic: Fish: 96 hour LC50 in Bluegill (Lepomis macrochirus): > 1400 mg/l

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: Partition coefficient n-octanol/ water (log Kow): 0.05

Mobility in soil: No data available.

13. DISPOSAL CONSIDERATIONS

If recycling is not practicable, dispose of in compliance with local regulations. Remove to a permitted waste disposal facility. The product should not be allowed to enter drains, water courses or the soil.

14. TRANSPORT INFORMATION

U.S. DOT

Proper Shipping Name: Consumer Commodity

Hazard Class: ORM-D

Identification No. None

Packing Group: None

IATA

Proper Shipping Name: Aerosols, Flammable

Hazard Class: 2.1

Identification No. UN1950

Packing Group: None

IMDG

Proper Shipping Name: Aerosols, Flammable

Hazard Class: 2.1

Identification No. UN1950

Packing Group: None

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA: All ingredients are listed in TSCA inventory.

16. OTHER INFORMATION

NPCA-HMIS Ratings:

Health - 2
Flammability - 2
Reactivity - 0

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

FOR INDUSTRIAL USE ONLY

REVISION DATE: DECEMBER 2017

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.