



## 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Name:** MS-124H  
DPMS D0521A  
Connector Lubricant

**Product Use:** Connector Lubricant

### **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**

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

### **Label elements:**

#### **Signal word**

Warning

#### **Symbols**

Exclamation mark

### **Pictograms**



### **Hazard Statements**

Causes eye irritation.  
May cause drowsiness or dizziness.

### **Precautionary Statements**

Avoid breathing dust/fume/gas/mist/vapors/spray.  
Use in a well-ventilated area.  
Wash thoroughly after handling.  
Pressurized container: Do not pierce or burn, even after use.  
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**Inhalation:** Remove person to fresh air and keep comfortable for breathing.

**Eye:** 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.

Call a POISON CENTER or doctor/physician if you feel unwell.

### 3. INGREDIENTS

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
1,1,1,2-Tetrafluoroethane	811-97-2	18 – 22
1,2-Trans-dichloroethylene	156-60-5	68 – 75
Methyl Nonafluorobutyl Ether	163702-07-6	1 – 7
Methyl Nonafluoroisobutyl Ether	163702-08-7	1 – 7
Polyphenyl Ether	2455-71-2	1 – 2

### 4. FIRST AID MEASURES

**Inhalation:** Remove patient to fresh air. 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. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

**Skin:** Remove contaminated clothing. Wash with soap and water. Get medical attention if necessary. Wash contaminated clothing and shoes before reuse.

**Oral:** Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.

**Notes to Physician:** Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. FIRE FIGHTING MEASURES

**Flammability:** This product is not flammable.

**Test Method:** Ignition distance test and Enclosed space ignition test

**Autoignition Temperature:** Not Determined

**Flammable Limits in Air, % by Vol.:** None detected

**Decomposition temperature:** Not available

**Extinguishing Media:** Non-combustible. Use a fire fighting agent suitable for surrounding fire such as water or foam to extinguish.

**Special hazards arising from the substance or mixture:** Exposure to extreme heat can give rise to thermal decomposition.

#### **Hazardous Decomposition or By-Products**

<b>Substance</b>	<b>Condition</b>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

**Special Fire Fighting Instruction:** Exposure to extreme heat can give rise to thermal decomposition and Self-contained breathing apparatus (SCBA) and full protective equipment are required.

## 6. ACCIDENTAL RELEASE MEASURES

Evacuate area. Ventilate area with fresh air. For a spill in confined areas, provide mechanical ventilation to disperse the vapors. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Absorb spill with vermiculite or commercially available inorganic absorbent material. Collect as much of the spilled material as possible and place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

## 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. Where ventilation is inadequate, use appropriate respiratory protection. Avoid contact with skin or eyes. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Avoid release in the environment. Avoid contact with oxidizing agents (chlorine, chromic acid etc.).

**Storage Conditions:** Store in well-ventilated area. Keep container tightly sealed. Do not store near sources of heat, in direct sunlight or where temperatures exceed 120°F/49°C.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Limits:</u>	<u>TWA (ACGIH)</u>	<u>TWA (OSHA)</u>	<u>TWA (AIHA)</u>
1,2-Trans-Dichloroethylene	200 ppm	200 ppm	
Methyl Nonafluorobutyl Ether	Not Established	Not Established	750ppm
Methyl Nonafluoroisobutyl Ether	Not Established	Not Established	750 ppm
1,1,1,2-Tetrafluoroethane	Not Established	Not Established	

**Respiratory Protection:** Avoid breathing vapors, mists or spray. If necessary to keep exposure limits below permissible limits, use NIOSH approved respirators, such as an air-purifying respirator for organic vapors. 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 chemically resistant to this material when prolonged or frequently repeated contact occurs. Gloves made of Fluoroelastomer or Polymer laminate are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point:** N.A.

**Percent Volatile by Volume:** 99%

**Density:** 1.27 gm/cc at 70°F/21°C

**Vapor Pressure:** 405 mmHg at 77°F/25°C

**Vapor Density (Air=1):** >1

**Solubility in H<sub>2</sub>O:** Slight

**pH Information:** Neutral

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

**Form:** Aerosol

**Appearance:** Clear

**Color:** Clear-Colorless

**Odor:** Slight odor

## 10. STABILITY AND REACTIVITY

**Stability:** Stable.

**Material and Conditions to Avoid:** Exposure to elevated temperatures. Strong bases and strong oxidizing agents.

**Decomposition:** Hydrogen Chloride, Hydrogen-Fluoride, Perfluoroisobutylene (PFIB), toxic vapors, gases or particulate may be products of thermal decomposition. (See section 5 for hazardous decomposition products during combustion).

**Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Methyl Nonafluorobutyl Ether**

### **Acute Toxicity**

**Ingestion:** LD50 > 5,000 mg/kg, Rat

**Inhalation:** LC50 > 1,000 mg/l, 4 h, Rat

**Skin Corrosion/Irritation:** No significant irritation in Rabbits

**Serious Eye Damage/Irritation:** No significant irritation in Rabbits

**Sensitization Skin:** Not sensitizing in Guinea pigs

**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:** Not toxic to female or male reproduction in rats. Some positive developmental data exist, but the data are not sufficient for classification.

**Repeated Dose Toxicity:** In Rats, some positive data exists, on the following organs: Liver, bone, nails and/or hair and Endocrine System, but not sufficient for classification.

**Single Dose Toxicity:** In Dogs, some positive data exists on the nervous system, but not sufficient for classification.

**Aspiration Hazard:** Not an aspiration hazard

### **Methyl Nonafluoroisobutyl Ether**

#### **Acute Toxicity**

**Ingestion:** LD50 > 5,000 mg/kg, Rat

**Inhalation:** LC50 > 1,000 mg/l, 4 h, Rat

**Skin Corrosion/Irritation:** No significant irritation in Rabbits

**Serious Eye Damage/Irritation:** No significant irritation in Rabbits

**Sensitization Skin:** Not sensitizing in Guinea pigs

**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:** Not toxic to female or male reproduction in rats. Some positive developmental data exist, but the data are not sufficient for classification.

**Repeated Dose Toxicity:** In Rats, some positive data exists, on the following organs: Liver, bone, nails and/or hair and Endocrine System, but not sufficient for classification.

**Single Dose Toxicity:** In Dogs, some positive data exists on the nervous system, but not sufficient for classification.

**Aspiration Hazard:** Not an aspiration hazard

### **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

**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:** Not toxic to female or male reproduction in rats. Some positive developmental data exist, 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, some positive data exists causing central nervous system depression and respiratory irritation, but not sufficient for classification.

**Aspiration Hazard:** Not an aspiration hazard

## 12. ECOLOGICAL INFORMATION

### Aquatic Toxicity:

<u>Test Organism</u>	<u>Test Type</u>	<u>Result</u>
Water flea (Daphnia magna)	48 hours Effect Conc. 50%	> 200 mg/l
Bluegill (Lepomis macrochirus)	96 hours Lethel Conc. 50%	> 125 mg/l

## 13. DISPOSAL CONSIDERATIONS

Comply with federal, state and local regulations. Remove to a permitted waste disposal facility.

## 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, Non-Flammable

**Hazard Class:** 2.2

**Identification No.** UN1950

**Packing Group:** None

### IMDG

**Proper Shipping Name:** Aerosols, Non-Flammable

**Hazard Class:** 2.2

**Identification No.** UN1950

**Packing Group:** None

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

**TSCA:** All ingredients are listed in TSCA inventory.

**SARA 313 Regulated Chemicals:** Trans-dichloroethylene

**311/312 HAZARD CATEGORIES:**

**Product Hazard Categories:**

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

**16. OTHER INFORMATION**

**NPCA-HMIS Ratings:**

Health	- 2
Flammability	- 1
Reactivity	- 0

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

**FOR INDUSTRIAL USE ONLY**

**REVISION DATE: SEPTEMBER 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.