



## 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Name:** MS-582N  
DPMS-N0616B-2  
Precision Cleaning Solvent

**Product Use:** Solvent Cleaning

### **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 (single exposure): Category 3.

### **Label elements:**

#### **Signal word**

Warning

#### **Pictogram**



### **Hazard Statements**

Causes eye irritation.  
May cause drowsiness or dizziness.

### **Prevention Statements**

Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
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

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.  
Store in a well-ventilated place. Keep container tightly closed.  
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 or frostbite. Misuse or intentional inhalation abuse may lead to death without warning symptoms, due to cardiac effects.

### **3. INGREDIENTS**

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
1,1,1,2,2,3,4,5,5,5-Decafluoropentane (HFC-43-10mee)	138495-42-8	25 – 35
Trans,1,2-Dichloroethylene	156-60-5	65 – 75

### **4. FIRST AID MEASURES**

**Inhalation:** Remove patient to fresh air. Get medical attention if symptoms occur.

**Eye:** Immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Continue to rinse. Get medical attention.

**Skin:** Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before use. Thoroughly clean shoes before reuse. Get medical attention.

**Oral:** DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

**Most important symptoms/effects, acute and delayed:** May cause cardiac arrhythmia.

Skin contact may provoke the following symptoms: Dermatitis, Discomfort, Pain, Superficial burning sensation, Redness, Rash, Itching, Swelling of tissue, Irritation

Eye contact may provoke the following symptoms: Pain, Tearing, Swelling of tissue, Redness, Impairment of vision

Inhalation may provoke the following symptoms: Unconsciousness, Drowsiness, Lack of coordination, confusion, Dizziness, Central nervous system depression

Effects of breathing high concentrations of vapor may include: Tiredness, Drowsiness, Central nervous system effects, Convulsions

Adverse effects from repeated inhalation may include central nervous system effects

Aspiration may cause pulmonary edema and pneumonitis. Causes eye irritation. May cause drowsiness or dizziness.

**Notes to Physician:** Treat symptomatically and supportively.

### **5. FIRE FIGHTING MEASURES**

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

**Suitable Extinguishing Media:** Water spray, Water mist, Dry chemical, Carbon dioxide (CO2)

**Unsuitable extinguishing media:** No applicable data available.

**Special hazards:** Fire or intense heat may cause violent rupture of packages. The product is not flammable. Vapors may form flammable mixture with air. Hazardous combustion products: Hydrogen fluoride, Carbonyl fluoride, Carbon oxides, Chlorine compounds.

**Special Fire Fighting Instruction:** In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear neoprene gloves during cleaning up work after a fire. 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. 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. In case of insufficient ventilation, wear suitable respiratory equipment.

**Environmental precautions:** If containers rupture, 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 non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national 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.

**Storage Conditions:** Store tightly sealed in a clean, dry place, and well-ventilated place. Do not store in temperatures that exceed 125°F/52°C, because the containers could leak or rupture from pressure and expansion.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Limits:</u>	<u>TLV (ACGIH)</u>	<u>PEL (OSHA)</u>
1,1,1,2,2,3,4,5,5,5-Decafluoropentane	Not Established	Not Established
Trans,1,2-Dichloroethylene	200 ppm, TWA	200 ppm, 8 Hr. TWA

**Respiratory Protection:** Avoid breathing vapors, mists or spray. Use with adequate ventilation especially for enclosed or low places. Vapors are heavier than air and can cause suffocation by reducing oxygen. 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:** 122°F/50°C

**Density:** 1.35 g/cc @ 77°F/25°C

**Vapor Density (Air=1):** N.A.

**pH Information:** Neutral

**Form:** Liquid

**Color:** Colorless

**Percent Volatile by Volume:** 100

**Vapor Pressure:** 349 mmHg @ 77°F/25°C

**Solubility in H<sub>2</sub>O:** N.A.

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

**Appearance:** Clear & Colorless

**Odor:** Slight

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not classified as a reactivity hazard.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** None known.

**Material and Conditions to Avoid:** None known.

**Decomposition:** No hazardous decomposition products are known.

## 11. TOXICOLOGICAL INFORMATION

### Animal Data

#### 1,1,1,2,2,3,4,5,5,5-Decafluoropentane

**Information on likely routes of exposure:** Inhalation, Skin contact, Ingestion, Eye contact

**Acute Toxicity:** Not classified based on available information.

**Skin Corrosion/Irritation:** Not classified based on available information.

**Serious Eye Irritation/ Eye Irritation:** Not classified based on available information.

**Skin Sensitization:** Not classified based on available information.

**Respiratory Sensitization:** Not classified based on available information.

**Germ Cell Mutagenicity:** Not classified based on available information.

**Carcinogenicity:** Not classified based on available information.

**Reproductive toxicity:** Not classified based on available information.

**STOT-single exposure:** Not classified based on available information.

**STOT-repeated exposure:** Not classified based on available information.

**Aspiration toxicity:** Not classified based on available information.

#### Trans-1,2-Dichloroethylene

**Acute Oral:** LD50: 7902 mg/kg in rats

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

**Acute Inhalation:** 4 hour LC50: 95.4 mg/l in rats. Test atmosphere: vapor. Method: OECD Test Guideline 403

**Skin Corrosion/Irritation:** Mild skin irritation in rabbits

**Serious Eye Irritation/ Eye Irritation:** Mild eye irritation in rabbits. Reversing within 7 days.

**Skin Sensitization:** No data available

**Respiratory Sensitization:** No data available

**Germ Cell Mutagenicity:** Evidence does not support classification of a germ cell mutagen.

**Carcinogenicity:** Not classified based on available information.

**Reproductive toxicity:** Not classified based on available information.

**STOT-single exposure:** May cause drowsiness and dizziness.

**STOT-repeated exposure:** No significant health effects observed in animals at concentrations of 250 ppmV/6h/d or less.

**Aspiration toxicity:** Not classified based on available information.

## 12. ECOLOGICAL INFORMATION

### **1,1,1,2,2,3,4,5,5-Decafluoropentane:**

**Ecotoxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Other adverse effects**

**Results of PBT and vPvB assessment:** This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

### **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

## 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

Not Regulated

### IATA

Not Regulated

### IMDG

Not Regulated

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

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

1,1,1,2,2,3,4,5,5,5-Decafluoropentane (CAS# 138495-42-8) - The United States Environmental Protection Agency has established a Significant New Use Rule (SNUR; 40 CFR 721.5645) for this product. This product contains one or more substances which requires export notification under TSCA Section 12(b) and 40 CFR Part 707 Subpart D.

**SARA 304 Extremely Hazardous Substances Reportable Quantity:** This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity:** This material does not contain any components with a section 302 EHS RQ.

**SARA 311/312 Hazards:** Serious eye damage or eye irritation. Specific target organ toxicity (single or repeated exposure).

**SARA 313 Regulated Chemicals:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Proposition 65:** This product does not contain chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

## 16. OTHER INFORMATION

### NPCA-HMIS Ratings:

Health - 1  
Flammability - 0  
Reactivity - 1

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

### FOR INDUSTRIAL USE ONLY

### REVISION DATE: MARCH 2019

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.