

## 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Name:** MS-122SEL  
N0805A-2  
PTFE Release Agent/Dry Lubricant

**Product Use:** Release Agent or Dry 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 (single exposure): Category 3.

### **Label elements:**

#### **Signal word**

Warning

#### **Pictograms**



#### **Hazard Statements**

Causes eye irritation.  
May cause drowsiness or dizziness

#### **Precautionary Statements**

Pressurized container: Do not pierce or burn, even after use.  
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.  
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

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

The thermal decomposition vapors of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco. Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing. Misuse or intentional inhalation abuse may lead to death without warning symptoms, due to cardiac effects.

### **3. INGREDIENTS**

<b><u>Material (s)</u></b>	<b><u>CAS No.</u></b>	<b><u>Approximate %</u></b>
1,1,1,2,2,3,4,5,5,5-Decafluoropentane	138495-42-8	36 – 42
Trans,1.2-Dichloroethylene	156-60-5	38 – 42
Trans-1,3,3,3-Tetrafluoroprop-1-ene (HFO-1234ze)	29118-24-9	18 – 22

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

**Inhalation:** Remove patient to fresh air, lie down. Get medical attention if necessary.

**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: Central nervous system effects

Aspiration may cause pulmonary edema and pneumonitis.

Causes eye irritation. May cause drowsiness or dizziness.

**Notes to Physician:** Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, that may be used in situations of emergency life support should be used with special caution.

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

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

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

**Fire and Explosion:** Aerosols may rupture under fire conditions. Decomposition may occur.

**Extinguishing Media:** Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)

**Special Fire Fighting Instruction:** Evacuate area. Use water spray to cool containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not breathe fumes or vapors from fire. Self-contained breathing apparatus (SCBA) maybe required if a large amount of aerosols rupture under fire conditions. Fight fire from a distance, heat may rupture containers.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Evacuate area. Ventilate the area with fresh air. If a large amount of aerosols rupture and spill in confined areas, provide mechanical ventilation to disperse the vapors.

**Environmental precautions:** Avoid release to the environment. Prevent material from entering sewers, waterways, or low areas. Do not allow contact with soil, surface, or ground water. Local authorities should be advised if significant spillages cannot be contained.

**Methods and material for containment and cleaning up:** Contain spillage, and then collect with inert 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. Use only with adequate ventilation. Use appropriate respiratory protection, when ventilation is inadequate. Avoid contact with skin or eyes. Wash thoroughly after handling.

**Storage Conditions:** Do not store near sources of heat, in direct sunlight or where temperatures exceed 120°F/49°C.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits:

### ACGIH

### OSHA

1,1,1,2,2,3,4,5,5,5-Decafluoropentane	Not Established	Not Established
Trans,1,2-Dichloroethylene	200 ppm, TWA	200 ppm, TWA
HFO-1234ze	Not Established	Not Established

**Respiratory Protection:** General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection

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

**Skin Protection:** Avoid contact with skin. Use gloves impervious (eg. Viton) to this material when prolonged or frequently repeated contact occurs. Wash hands before breaks and at the end of workday. Breakthrough time is not determined for the product. Change gloves often.

**Hygiene measures:** Do not eat, drink or smoke when using this product. Wash hands thoroughly after contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point:** N.A.

**Density:** 1.41 g/cc at 77°F/25°C

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

**pH Information:** Neutral

**Form:** Aerosol

**Color:** White

**Percent Volatile by Volume:** 99%

**Vapor Pressure:** 497 mm Hg at 77°F/25°C

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

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

**Appearance:** Milky

**Odor:** Faint Ethereal Odor

## 10. STABILITY AND REACTIVITY

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

**Chemical Stability:** Stable at normal conditions.

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

**Decomposition:** This product can be decomposed by high temperatures (flame, glowing metal surfaces, etc.) forming Hydrofluoric acid, Carbonyl difluoride, Carbon monoxide and Carbon dioxide

## 11. TOXICOLOGICAL INFORMATION

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

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

**Acute Oral:** LD50: > 5000 mg/kg in rats

**Acute Inhalation (vapor):** 4 hour LC50: 114 mg/l in rats

**Acute Dermal:** LD50: > 5000 mg/kg in rats

**Skin Corrosion/Irritation:** No skin irritation in rabbits.

**Serious Eye Irritation/ Eye Irritation:** No eye irritation in rabbits.

**Skin Sensitization:** No skin sensitization in Guinea pigs.

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

**Germ Cell Mutagenicity:** Weight of evidence does not support classification as a germ cell mutagen.

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

**Reproductive toxicity:** Weight of evidence does not support classification as a germ cell mutagen.

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

**STOT-repeated exposure:** No significant health effects observed in animals at concentrations of 1mg/l/6h/d or less.

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

### Trans-1,2-Dichloroethylene

**Acute Oral:** LD50: 7902 mg/kg in rats. Method: OECD Test Guideline 420

**Acute Dermal:** LD50: > 5,000 mg/kg in rabbits. Method: OECD Test Guideline 402

**Acute Inhalation:** 4 hour LC50: 95.5 mg/l in rats. Test atmosphere: vapor. Method: OECD Test Guideline 403

**Skin Corrosion/Irritation:** Mild skin irritation in rabbits. Method: OECD Test Guideline 404

**Serious Eye Irritation/ Eye Irritation:** Eye irritation in rabbits. Reversing within 7 days. Method: OECD Test Guideline 405

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

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

**Germ Cell Mutagenicity:** In vitro and In vivo – Not Mutagenic. Weight of evidence does not support classification as a germ cell mutagen.

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

**Reproductive toxicity:** Embryo-fetal development: Negative in rat by inhalation. Method: OECD Test Guideline 414

**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 by inhalation.

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

## 12. ECOLOGICAL INFORMATION

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

96 hour LC50 in Oncorhynchus mykiss (rainbow trout): 13.9 mg/l

96 hour LC50 in Pimephales promelas (fathead minnow): 27.2 mg/l

96 hour LC50 in Danio rerio (zebra fish): 13 mg/l

48 hour LC50 in Daphnia magna (Water flea): 11.7 mg/l

72 hour EC50 in Pseudokirchneriella subcapitata (Green algae): >120 mg/l

21 days NOEC in Daphnia magna (Water flea): 1.72 mg/l

**Biodegradability:** Not readily biodegradable.

**Bioaccumulative potential:** Bioaccumulation is unlikely.

**Mobility in soil:** No data available

### Trans-1,2-Dichloroethylene

96 hour LC50 in Lepomis macrochirus (Bluegill sunfish): 135 mg/l. Based on data from similar materials.

48 hour EC50 in Daphnia magna (Water flea): 220 mg/l. Method: EPA-660/3-75-009

72 hour EC50 in Pseudokirchneriella subcapitata (Green algae): 36.36 mg/l. Method: OECD Test Guideline 201

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

**Bioaccumulative potential:** Partition coefficient: n-octanol/water: log Pow: 2.06

## 13. DISPOSAL CONSIDERATIONS

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

## 14. TRANSPORT INFORMATION

### U.S. DOT

Limited Quantity

### 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.

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. Also, this product requires an export notification under TSCA Section 12(b) and 40 CFR Part 707 Subpart D.

**U.S. State Regulations**

**California Prop. 65**

WARNING: This product can expose you to chemicals including pentadecafluorooctanoic acid, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). Note to User: This product is not made with PFOA nor is PFOA intentionally present in the product; however, it is possible that PFOA may be present as an impurity at background (environmental) levels.

**16. OTHER INFORMATION**

**NPCA-HMIS Ratings:**

Health - 1

Flammability - 1

Reactivity - 1

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

**FOR INDUSTRIAL USE ONLY**

**REVISION DATE: FEBRUARY 2022**

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.