



1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: MS-722
DPMS T0120B1
Precision Cleaning Agent

Product Use: Cleaning 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

Hazard classification

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

Label elements:

Signal word

Warning

Pictogram



Hazard Statements

Causes serious 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.
Wear eye protection, protective clothing and protective gloves
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.
Call a POISON CENTER or doctor/physician if you feel unwell.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/ container to an approved waste disposal plant.

3. INGREDIENTS

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
Isopropyl Alcohol	67-63-0	10 – 14
Ethyl Nonafluorobutyl Ether	163702-05-4	25 – 45
Ethyl Nonafluoroisobutyl Ether	163702-06-5	45 – 65

4. FIRST AID MEASURES

Inhalation: Remove patient to fresh air and keep at rest comfortable for breathing. If not breathing, give artificial respiration. Give oxygen as necessary, if qualified personnel are 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. Remove contact lenses, if present and easy to do. Continue to rinse. Get medical attention if irritation develops and persists.

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

Oral: Rinse mouth. 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 drowsiness and dizziness.

5. FIRE FIGHTING MEASURES

Flammability: This product is not flammable. Does not flash using TCC.

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: The product is not flammable but may burn at high temperatures. Product is not explosive. Hazardous reaction will not occur under normal conditions.

Special Fire Fighting Instruction In the event of fire, wear self-contained breathing apparatus and other protective clothing to prevent contact with the skin and eyes. Exposure to decomposition products may be a hazard to health.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: 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. 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 inert material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in 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 ventilation 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. Strong acids, Strong bases and Strong oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Limits:</u>	<u>STEL (ACGIH)</u>	<u>PEL (OSHA)</u>
Isopropyl Alcohol	400 ppm	400 ppm
Ethyl Nonafluorobutyl Ether	Not Established	Not Established
Ethyl Nonafluoroisobutyl Ether	Not Established	Not Established

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.

Respiratory Protection: Avoid breathing vapors, mists or spray. 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 Range: 169°F – 180°F / 76°C – 82°C

Percent Volatile by Volume: 100%

Density: 1.35 gm/cc at 70°F/21°C

Vapor Pressure: 101 mmHg at 77°F/25°C

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

Solubility in H₂O: Insoluble

pH Information: Neutral

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

Form: Liquid

Appearance: Clear

Color: Clear-Colorless

Odor: Slight alcohol

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: Direct sunlight. Extremely high and low temperatures. Strong acids, Strong bases and Strong oxidizers.

Decomposition: This product can be decomposed by high temperatures (flame, glowing metal surfaces, etc.) forming Hydrogen fluoride, Perfluoroisobutylene (PFIB)

11. TOXICOLOGICAL INFORMATION

Ethyl Nonafluorobutyl Ether

Acute Toxicity

Dermal: LD50 estimated to be 2,000 – 5,000 mg/kg

Ingestion: LD50 > 2,000 mg/kg, Rat

Inhalation: LC50 > 989 mg/l, 4 h, Rat

Skin Corrosion/Irritation: No significant irritation in Rabbits

Serious Eye Damage/Irritation: No significant irritation in Rabbits

Skin Sensitization: Not sensitizing in Guinea pigs

Respiratory Sensitization: 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 classified for development in rats by inhalation (Test results - NOAEL 260 mg/l, during gestation).

Single Dose Toxicity: In Dogs, some positive data, but the data is not sufficient for classification by inhalation (cardiac sensitization) (Test results – NOAEL 204 mg/l, exposure 17 mins). In Rats, not classified by inhalation (respiratory irritation) (Test results - NOAEL 989 mg/l, exposure 4 hours).

Repeated Dose Toxicity: In Rats, not classified by inhalation in liver, kidney and/or bladder, respiratory system, heart, endocrine system, gastrointestinal tract, bone marrow, hematopoietic system, immune system, nervous system (Test results – NOAEL 263.4 mg/l, exposure 4 weeks). In Rats, not classified by ingestion in blood, liver, kidney, and/or bladder, heart, bone marrow, endocrine, immune, hematopoietic, nervous, and respiratory systems, (Test results – NOAEL 1,000 mg/kg/day, exposure 28 days).

Aspiration Hazard: Data not available or insufficient for classification.

Ethyl Nonafluoroisobutyl Ether

Acute Toxicity

Dermal: LD50 estimated to be 2,000 – 5,000 mg/kg

Ingestion: LD50 > 2,000 mg/kg, Rat

Inhalation: LC50 > 989 mg/l, 4 h, Rat

Skin Corrosion/Irritation: No significant irritation in Rabbits

Serious Eye Damage/Irritation: No significant irritation in Rabbits

Skin Sensitization: Not sensitizing in Guinea pigs

Respiratory Sensitization: Data not available or insufficient for classification

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Aspiration Hazard: Data not available or insufficient for classification.

Isopropyl Alcohol

Acute Oral Toxicity: LD50, Rat: > 5,000mg/kg

Acute Inhalation Toxicity: 6 hour, LC50, Rat: > 25mg/l (vapor)

Acute Dermal Toxicity: LD50, Rabbit: > 5,000 mg/kg

Skin Corrosion/Irritation: No skin irritation in rabbits

Serious Eye Irritation/ Eye Irritation: Eye irritation, in rabbits. Reversing in 21 days.

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: May cause drowsiness and dizziness.

STOT-repeated exposure: Not classified based on available information

Aspiration toxicity: Not classified based on available information

12. ECOLOGICAL INFORMATION

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.

Toxic to Fish: 96 hour, LC50 in Fathead minnow (*Pimephales promelas*): 9640 mg/l

Toxic to daphnia and other aquatic invertebrates: 24 hour, EC50 Water flea (*Daphnia magna*): >10,000 mg/l

Toxic to microorganisms: 16 hour, EC50 (*Pseudomonas putida*): >1,050 mg/l

Persistence and degradability: Rapidly degradable

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

Not Regulated

IATA

Not Regulated

IMDG

Not Regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA: All ingredients are listed in TSCA inventory.

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: APRIL 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.