1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: MS-467C
D0606B
Acrylic Conformal Coating

Product Use: Conformal Coating

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
Reproductive toxicity: Category 2
Aspiration hazard: Category 1
Skin corrosion/irritation: Category 2
Specific Target Organ Toxicity (single exposure): Category 3
Specific Target Organ Toxicity (repeated exposure): Category 2
Hazardous to the aquatic environment, long-term hazard: Category 3

Label elements:
Signal word
Danger
Pictograms

Hazard Statements
Suspected of damaging fertility or the unborn child.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.

Precautionary Statements
Do not handle until all safety precautions have been read and understood.
Do not breathe 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 SWALLOWED: Immediately call POISON CENTER or doctor/physician.
Do NOT induce vomiting.
IF ON SKIN: wash with plenty of water.
IF SKIN irritation occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call POISON CENTER or doctor/physician if you feel unwell.
Take off contaminated clothing and wash before reuse.
Avoid release to the environment.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/ container in accordance with local, regional, national regulations.

3. INGREDIENTS

Material (s)	CAS No.	Approximate %
1,1,1,2,2,3,4,5,5,5-Decafluoropentane	138495-42-8	35 – 40
Trans 1,2-dichloroethylene	156-60-5	35 – 40
Toluene	108-88-3	18 – 22

4. FIRST AID MEASURES

Inhalation: Remove patient to fresh air. If not breathing, give artificial respiration. Give oxygen as necessary if qualified person 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. Remove contact lenses, if present and easy to do. Continue to rinse. Get medical attention if necessary.

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

Oral: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER/doctor/physician if you feel unwell.

5. FIRE FIGHTING MEASURES

Flash Point: None **Method:** Pensky Martin Closed Cup

Suitable Extinguishing Media: Water spray, Alcohol resistant foam, Dry chemical powder, 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. Gas/vapor are heavier than air. May accumulate in confined spaces, particularly at or below ground level. Containers may rupture when exposed to excessive heat. Hazardous reactions will not occur under normal conditions.

Special Fire Fighting Instruction: Do not enter area without personal protective equipment, including respiratory protection. Exposure to decomposition products may be a hazard to health. Wear self-contained breathing apparatus, if necessary. Use water spray and fog for cooling exposed containers. Do not allow run-off from fire-fighting to enter drains or water sources.

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. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure area and call for assistance of trained personnel as soon as conditions permit.

Environmental precautions: Prevent material from entering sewers, waterways, or low areas. Should not be released into the environment.

Methods and materials for containment and clean up: Contain spillage, and then collect with inert material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

7. HANDLING AND STORAGE

Handling: Avoid breathing vapors or mist. Use only with adequate ventilation. Avoid contact with eyes, skin, or clothing. Do not eat, drink or smoke when handling this product. Wash thoroughly after handling. Do not handle until all safety operating conditions are established and maintained.

Storage Conditions: Store tightly sealed in a clean, dry place, and well ventilated place. Do not store in temperatures that exceed 125^{O}F/52^{O}C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:	TLV (ACGIH)	PEL (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
Toluene	20 ppm TWA	200 ppm TWA

Use only with adequate ventilation. Vapors are heavier than air posing a hazard of asphyxia if they are trapped in enclosed or low places.

Eye Protection: Wear safety glasses or coverall chemical splash goggles. An eyewash and safety shower should be nearby.

Respiratory Protection: Where there is potential for airborne exposures more than applicable limits, wear NIOSH approved respiratory protection.

Skin Protection: Where there is potential for skin contact have available and wear as appropriate impervious gloves. Protective gloves and chemical splash goggles should be used when handling liquid.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 118°F/48°C

Density: 1.26 g/cc @ 77°F/25°C

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

pH Information: Neutral

Form: Liquid

Color: Colorless

Percent Volatile by Volume: 93

Vapor Pressure: N.A.

Solubility in H_2O: Negligible

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

Appearance: Clear

Odor: Solvent odor

10. STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Material and Conditions to Avoid: Direct sunlight. Heat. Strong oxidizers. Strong acids, Strong bases, Halogenated compounds.

Decomposition: Carbon oxide, Hydrocarbons, Aldehydes.

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.

Toluene

Oral: LD50: 5,580 mg/kg in rats (OECD Test Guideline 401)
Dermal: LD50: 12,196 mg/kg in rabbits
Inhalation (vapor): 4 hour LC50: 25.7 mg/l in male rats & 30 mg/l in female rats (OECD Test Guideline 403)
Skin corrosion/irritation: Irritating to skin in rabbits (OECD Test Guideline 404)
Serious eye damage/eye irritation: No eye irritation in rabbits (OECD Test Guideline 405)
Respiratory or skin sensitization: Maximization Test: Negative in Guinea pigs (OECD Test Guideline 406)
Germ cell mutagenicity: In vitro and vivo tests did not show mutagenic effects.
Carcinogenicity: Animal testing did not show any carcinogenic effects.
Reproductive toxicity: Animal testing did not show any effects on fertility.
STOT-single exposure: Inhalation - Target organs: Central nervous system. May cause drowsiness or dizziness.
STOT-repeated exposure: Inhalation - May cause damage to organs through prolonged or repeated exposure.
Aspiration toxicity: May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

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

96 hour LC50 in Oncorhynchus mykiss (rainbow trout): 13.9 mg/l
96 hour LC50 in Pimephales promelas (fathead minnow): 27.2 mg/1
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 marochirus (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
48 hour EbC50 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

Toluene

96 hour LC50 in Oncorhynchus mykiss(rainbow trout): 5.8 mg/l
48 hour LC50 in Ceriodaphnia dubia, semi-static test: 3.78 mg/l
72 hour EbC50 in Pseudokirchneriella subcapitata (green algae), Biomass: 12.5mg/l (Method: OECD Test Guideline 201)
16 hour IC50 in bacteria: 29 mg/l
40 days NOEC in fish, flow-through test, growth: 1.4 mg/l
7 days NOEC in Ceriodaphnia dubia (water flea), number of offspring: 0.74 mg/l
Biodegradability: Readily biodegradable. Method: OECD Test Guideline 301C
Bioaccumulative potential: Bioconcentration potential is low (Log Pow < 3)
Partition coefficient: n-octanol/water: log Pow: 2.73

13. DISPOSAL CONSIDERATIONS

Comply with Federal, State/Provincial and Local regulations. Remove to a permitted waste disposal facility.

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

State Regulations (U.S.)

California Proposition 65: This product contains a chemical known to the State of California to cause cancer and/or birth defects or other reproductive harm. Toluene (CAS 108-88-3) – Developmental Toxin.

16. OTHER INFORMATION

NPCA-HMIS Ratings:

Health	- 2
Flammability	- 1
Reactivity	- 1

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

FOR INDUSTRIAL USE ONLY

REVISION DATE: MAY 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.