## 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Name:** MS-477C
D0607B
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**
Aspiration hazard: Category 1
Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 2A.
Skin Sensitization: Category 1
Reproductive toxicity: Category 2
Specific Target Organ Toxicity (single exposure): Category 3
Specific Target Organ Toxicity (repeated exposure): Category 2

**Label elements:**
**Signal word**
Danger

**Pictograms**

**Hazard Statements**
May be fatal if swallowed and entered airways.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.

May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements**
Obtain special instructions before use.
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.
Contaminated work clothing should not be allowed out of the workplace.
Wear eye protection, protective clothing and protective gloves.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.
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.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
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 – 45 |
| Trans 1,2-dichloroethylene | 156-60-5 | 35 – 45 |
| Toluene | 108-88-3 | 8 – 15 |
| Methyl ethyl ketone | 78-93-3 | < 5 |
| Solvent naphtha | 64742-95-6 | < 1 |

## 4. FIRST AID MEASURES

**Inhalation:** Remove patient to fresh air. If not breathing, give artificial respiration. Give oxygen as necessary, if qualified personnel is available. Get medical attention if necessary.

**Eye:** Flush with a large amount 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.

**Skin:** Wash skin with plenty of water (using soap, if available) for at least 15 minutes. Wash contaminated clothing before use. Get medical attention if necessary.

**Oral:** Do NOT induce vomiting. If vomiting occurs, prevent aspiration by keeping the patient's head below the knees. Aspiration may cause pulmonary edema and pneumonitis. Never give anything by mouth to an unconscious person. Call a POISON CENTER/doctor/physician.

## 5. FIRE FIGHTING MEASURES

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

**Suitable Extinguishing Media:** 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 hot temperatures. Gas/vapor are heavier than air. May accumulate in confined spaces, particularly at or below ground level. Product is not explosive. 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. Avoid strong acids, strong bases and strong oxidizers.

## 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 8 Hr. TWA |
| Toluene | 20 ppm TWA | 200 ppm TWA |
| Methyl ethyl ketone | 200 ppm TWA | 200 ppm PEL |

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 above the 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:** 113°F/45°C

**Density:** 1.26 g/cc @ 77°F/25°C

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

**pH Information:** Neutral

**Form:** Liquid

**Color:** Colorless to light amber

**Percent Volatile by Volume:** 93

**Vapor Pressure:** N.A.

**Solubility in $H_2O$:** Negligible

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

**Appearance:** Clear to light amber liquid

**Odor:** Aromatic odor

## 10. STABILITY AND REACTIVITY

**Reactivity:** Hazardous reactions will not occur under normal conditions.

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

**Possibility of hazardous reactions:** Hazardous polymerization will not occur under normal conditions.

**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 hot temperatures (flame, glowing metal surfaces, etc.) forming Carbon oxides (CO, $CO_2$), Irritating organic vapors.

## 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 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:** 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:** Negative for Embryo-fetal development in rats by inhalation (OECD Test Guideline 414)
**STOT-single exposure:** May cause drowsiness and dizziness.
**STOT-repeated exposure:** Inhalation: No significant health effects observed in animals at concentrations of 250 ppmV/6h/d or less.
**Aspiration toxicity:** Not classified based on available information.

**Toluene**

**Acute Oral:** LD50: > 5,580 mg/kg in male rats
**Acute Dermal:** LD50: > 5, 000 mg/kg in rabbits (ECHA)
**Acute Inhalation:** 4 hour LC50: 25.7 mg/l (OECD Test Guideline 403)
**Skin corrosion/irritation:** Skin irritation – 4 hours in rabbits (ECHA)
**Serious eye damage/eye irritation:** Slight irritation in rabbits (OECD Test Guideline 405)
**Respiratory or skin sensitization:** Maximisation Test: Negative in Guinea pigs
**Germ cell mutagenicity:** Genotoxicity in vitro: Negative
**Carcinogenicity:** Not classified based on available information.
**Reproductive Toxicity:** Suspected of damaging the unborn child.
**STOT-single exposure:** May cause drowsiness and dizziness. – Central nervous system.
**STOT-repeated exposure:** May cause damage to organs through prolonged or repeated exposure. – Central nervous system.
**Aspiration hazard:** Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

**Methyl Ethyl Ketone**

**Acute Oral:** LD50: 670 mg/kg in mice
LD50: 2,300 -3,500 mg/kg in rats
**Acute Dermal:** LD50: > 8000 mg/kg in rabbit

## 12. ECOLOGICAL INFORMATION

**Aquatic Toxicity:**

**1,1,1,2,2,3,4,5,5,5-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 marochirus (Bluegill sunfish): 135 mg/l. Based on data form 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
**Mobility in soil:** No data available.

**Toluene**

96 hour LC50 in Bluegill: 74 – 340 mg/l
96 hour LC50 in rainbow trout: 7.63 mg/l
7 day NOEC in fathead minnow: 5.44 mg/l
24 hour EC50 in Daphnia magna: 8 mg/l
24 hour EC50 in Fresh water algae: 245 mg/l

## 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 as active or are exempt from listing on the 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.

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.
**CERCLA/SARA Section 311/312:** Immediate and Delayed Health. Serious eye damage or eye irritation. Specific target organ toxicity (single or repeated exposure).
**CERCLA/SARA Section 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR 372). Toluene (CAS# 108-88-3). Methyl ethyl ketone (CAS# 78-93-3).
**CERCLA Reportable quantity:** Methyl ethyl ketone (CAS# 78-93-3) 5,000 lbs. (2,270 kg)
Toluene (CAS# 108-88-3) 1,000 lbs. (454 kg)

### 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.

## 16. OTHER INFORMATION

**FOR INDUSTRIAL USE ONLY**

**REVISION DATE: JULY 2021**

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.