



## 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Name:** DPMS-Y0110A  
Urethane 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**

Acute toxicity (Inhalation): Category 4

Skin irritation: Category 2

Eye irritation: Category 2A.

Respiratory Sensitization: Category 1

Skin Sensitization: Category 1

Reproductive toxicity: Category 2

Carcinogenicity: 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**

Harmful if swallowed or inhaled.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause drowsiness or dizziness.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.  
May cause damage to organs through prolonged or repeated exposure.

### **Precautionary Statements**

Handle after all safety precautions have been read and understood.  
Avoid breathing mist/vapors/spray.  
Wash skin thoroughly after handling.  
Do not eat, drink, or smoke when using this product.  
Use in a well-ventilated area.  
Wear eye protection/face protection and protective gloves.  
Use personal protective equipment as required.  
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
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.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF exposed or concerned: Call a POISON CENTER or doctor/ physician.  
If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/ attention.  
If experiencing respiratory symptoms: Call a POISON CENTER, a doctor.  
Pressurized container: Do not pierce or burn, even after use.  
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
Dispose of contents/ container in accordance with local, regional, national regulations.

### **Other Hazards**

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. In high concentrations asphyxiation may occur. Symptoms may include loss of mobility/unconsciousness. Victim may not be aware of asphyxiation.

## **3. INGREDIENTS**

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
Methylene Chloride	75-09-2	62 – 68
Toluene	108-88-3	4 – 6
Xylene	1330-20-7	1 – 4
Methoxypropyl acetate 2-	108-65-6	1 – 4
Ethyl benzene	100-41-4	< 1.5
Toluene Diisocyanate	26471-62-5	< 0.2
1,1,1,2-Tetrafluoroethane	811-97-2	18 – 22

#### 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 large amounts of water for at least 15 minutes, lifting eyelids until no evidence of the chemical remains. Get medical attention. Remove contact lenses, if present and easy to do. Continue to rinse.

**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. 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

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

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

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

**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. 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

**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. 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.

**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 / 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 in a clean, dry area. Do not store sources of heat, in direct sunlight or where temperatures exceed 120F/49C.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Limits:</u>	<u>TLV (ACGIH)</u>	<u>PEL (OSHA)</u>	<u>AEL (DuPont)</u>
Methylene Chloride	50 ppm, TWA	25 ppm, TWA	
Toluene	20 ppm TWA	200 ppm, 8 Hr. TWA	
Xylene	100 ppm TWA	100 ppm TWA	
1-Methoxy-2-propanol acetate	Not Established	Not Established	
Ethyl benzene	20 ppm TWA	100 ppm TWA	
Toluene Diisocyanate	0.005 ppm TWA	Not Established	
1,1,1,2-Tetrafluoroethane	Not Established	Not Established	1000 ppm

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which is lower than the AEL are in effect, such limits shall take precedence.

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 in excess of 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:** N.A. (Aerosol)

**Percent Volatile by Volume:** 93

**Density:** 1.28 g/cc @ 77°F/25°C

**Vapor Pressure:** N.A.

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

**Solubility in H<sub>2</sub>O:** Negligible

**pH Information:** Neutral

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

**Form:** Aerosol

**Appearance:** Light Amber in liquid state

**Color:** Colorless to light amber

**Odor:** Solvent 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. Incompatible strong oxidizing agents, strong bases, alkalis, amines, alcohols, and water. Chemically active metals, such as aluminum, zinc and magnesium powder, sodium, and potassium.

**Decomposition:** This product can be decomposed by high temperatures (flame, glowing metal surfaces, etc.) forming oxides of carbon and nitrogen, hydrogen cyanide, hydrocarbons, isocyanates, hydrogen chloride, and trace amounts of chlorine and phosphine.

## 11. TOXICOLOGICAL INFORMATION

### Animal Data

#### Methylene Chloride

**Oral:** LD50 > 2,000 mg/kg in rats. No death occurred at this concentration.

**Dermal:** LD50 > 2,000 mg/kg in rats. No death occurred at this concentration.

**Inhalation:** 4 hour LC50 (vapor): 86 mg/l in mice.

In confined or poorly ventilated areas, vapor can readily accumulate and can cause unconsciousness and death. Vapor may cause irritation of the upper respiratory tract (nose and throat). May cause carboxyhemoglobinemia, thereby impairing the blood's ability to transport oxygen. Minimal anesthetic or narcotic effect may be seen in the range of 500-1000 ppm methylene chloride. Progressively higher levels over 1000 ppm may cause dizziness, drunkenness, and low as 10,000 ppm, unconsciousness and death. These high levels may also cause cardiac arrhythmias (irregular heartbeats).

**Skin corrosion/irritation:** Brief contact may cause moderate skin irritation and local redness. Prolonged contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. Skin contact with methylene chloride, such as immersion, may cause an intense burning sensation, followed by cold, numb feeling which will subside after contact. May cause drying and flaking of the skin.

**Serious eye damage/eye irritation:** May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness.

**Skin and respiratory sensitization:** No data available.

**Specific Target Organ Systemic Toxicity (Single Exposure):** May cause drowsiness or dizziness. May cause respiratory irritation. Route of Exposure: Inhalation. Target Organs: Central nervous system, Respiratory Tract.

**Specific Target Organ Systemic Toxicity (Repeated Exposure):** In animals, effects have been reported on the following organs: Kidney, Liver, Blood. May cause carboxyhemoglobinemia, thereby impairing the blood's ability to transport oxygen.

**Carcinogenicity:** Methylene chloride has been shown to increase the incidence of malignant tumors in mice and benign tumors in rats. Other animal studies on methylene chloride alone, as well as several human epidemiology studies, failed to show a tumorigenic response. Methylene chloride is not believed to pose a measurable carcinogenic risk to humans when handled as recommended. Studies have shown that tumors observed in mice are unique to that species.

**Teratogenicity:** Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

**Reproductive toxicity:** In animal studies, did not interfere with reproduction.

**Mutagenicity:** The Ames bacterial tests have generally been positive, overall the data suggest the genotoxic potential does not appear to be significant factor in the toxicity of the methylene chloride.

**Aspiration Hazard:** Aspiration into the lungs may occur during ingestion or vomiting, resulting in rapid absorption and injury to other body systems.

**Carcinogenicity:** IARC: Group 2B: Possible carcinogenic to humans.

US NTP: Reasonably anticipated to be a human carcinogen.

OSHA CARC ACGIH: OSHA specifically regulated carcinogen A3: Confirmed animal carcinogen with unknown relevance to humans.

## **Toluene**

**Oral:** LD50: > 5,580 mg/kg in rats

**Dermal:** LD50: 12,196 mg/kg in rabbits

**Inhalation:** 4 hour LC50: 12,500 – 28,800 mg/m<sup>3</sup> in rats

**Skin corrosion/irritation:** Skin irritation – 24 hours in rabbits

**Serious eye damage/eye irritation:** No data available

**Respiratory or skin sensitization:** No data available

**Germ cell mutagenicity:** Genotoxicity in vitro – liver – DNA damage in rats

**Reproductive Toxicity:** Evidence of reproductive effects in humans.

## **Other ingredients**

1-Methoxy-2-propanol acetate and Ethyl Benzene are irritants that affect the Central Nervous System (CNS). Xylene is an irritant that affects Cardiac, CNS, Kidney and Liver. Toluene Diisocyanate is corrosive, an allergen, and an irritant affecting Bone Marrow, Eyes, and Respiratory and also a mutagen. Also some evidence of carcinogenicity.

## **12. ECOLOGICAL INFORMATION**

### **Aquatic Toxicity:**

#### **Methylene Chloride**

LC50/EC50 in most sensitive aquatic species: 10 – 100 mg/l

96 hour LC50 in fathead minnow, flow-through test: 193 mg/l

LC50 in Daphnia magna, static test, OECD Test Guideline 202 or Equivalent: 27 mg/l

96 hour EC50 in green algae, OECD Test Guideline 201 or Equivalent, Biomass: > 662 mg/l

40 min EC50 in activated sludge, static test, OECD 209 Test: 2,590 mg/l

28 day NOEC in flathead minnow, flow-through test, growth: 83 mg/l

#### **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

7 day LOEC in fathead minnow: 8.04 mg/l

24 hour EC50 in Daphnia magna: 8 mg/l

24 hour EC50 in Fresh water algae: 245 mg/l

24 hour EC50 in green algae: 10 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**

**Proper Shipping Name:** Consumer Commodity

**Hazard Class:** ORM-D

**Identification No.** None

**Packing Group:** None

#### **IATA**

**Proper Shipping Name:** Aerosols, Non-Flammable

Containing substances in Division 6.1

**Hazard Class:** 2.2, Sub Risk 6.1

**Identification No.** UN1950

**Packing Group:** III

#### **IMDG**

**Proper Shipping Name:** Aerosols, Non-Flammable

Containing substances in Division 6.1

**Hazard Class:** 2.2, Sub Risk .6.1

**Identification No.** UN1950

**Packing Group:** III

### 15. **REGULATORY INFORMATION**

#### **U.S. Federal Regulations**

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

#### **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**

**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: SEPTEMBER 2015**

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.