

## SAFETY DATA SHEET – MME UNIVERSAL RESIN

### SECTION 1. IDENTIFICATION

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<b>Product Identifier</b>	MME Universal Resin
<b>Other Means of Identification</b>	Universal Resin
<b>Recommended Use</b>	Hydrophobic polyurethane resin for water cut-off applications.
<b>Restrictions on Use</b>	Professional use only
<b>Supplier Identifier</b>	Multiurethanes Ltd. 5245 Creekbank Rd, Mississauga, ON L4W 1N3 (Canada)
<b>Emergency Telephone Number</b>	1-800-663-6633

### SECTION 2. HAZARD IDENTIFICATION

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**Classification** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin Irritation - Category 2  
Skin Sensitization - Category 1  
Eye Damage/Eye Irritation - Category 2B  
Acute Toxicity, Inhalation – Category 4  
Respiratory Sensitization - Category 1  
Specific Target Organ Toxicity (Single Exposure) - Category 3  
Specific Target Organ Toxicity (Repeated Exposure) - Category 1

**Label Elements**

Hazard Pictograms



Signal Word

DANGER

Hazard Statements

Causes skin irritation.  
May cause an allergic skin reaction.  
Causes eye irritation.  
Harmful if inhaled.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.  
Causes damage to organs (respiratory system) through prolonged or repeated exposure.

Precautionary Statements

**Prevention**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear appropriate protective equipment.  
Avoid breathing fume/mist/vapours.  
Use only outdoors or in a well-ventilated area.

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Wash hands thoroughly after handling.

### **Response**

IF ON SKIN: Wash with plenty of soap and water. If irritation or rash occurs, seek medical attention.

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, seek medical attention.

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Seek medical attention.

### **Storage**

Keep container tightly closed and sealed until ready for use. Store in original container protected from high temperatures. Keep away from incompatibles.

### **Disposal**

Dispose of material in accordance with all applicable federal, state/provincial, and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator.

### **Other Hazards**

4% of the mixture consists of ingredients of unknown acute toxicity (oral/inhalation). 35% of the mixture consists of ingredients of unknown acute toxicity (dermal).

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### **Mixture**

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration (% by weight)</u>	<u>Common Names / Synonyms</u>	<u>Other Identifiers</u>
Polymeric Diphenylmethane Diisocyanate	9016-87-9	15 - 40%	Not available	Not available
4,4'-Diphenylmethane Diisocyanate	101-68-8	15 - 40%	Not available	Not available
2,4'-Diphenylmethane Diisocyanate	5873-54-1	1 - 5%	Not available	Not available
2,2'-Diphenylmethane Diisocyanate	2536-05-2	0.1 - 1%	Not available	Not available

### **Notes**

The balance of the ingredients is not classified as hazardous or is below the concentration limit to be classified as hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200 and HPR WHMIS 2015.

## SECTION 4. FIRST-AID MEASURES

### **Inhalation**

Remove the victim to fresh air and keep them comfortably at rest so they can breathe. If they are not breathing, provide artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Seek medical attention.

### **Skin Contact**

Wash with soap and water, and rinse thoroughly. Seek medical attention if irritation or pain develops.

### **Eye Contact**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek medical attention.

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<b>Ingestion</b>	Do not induce vomiting. If swallowed, wash the mouth with water, provided the person is conscious. Follow with plenty of water. Never give liquids to an unconscious person. Seek medical attention.
<b>Most Important Symptoms and Effects, Acute and Delayed</b>	Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Causes damage to organs (respiratory system) through prolonged or repeated exposure.
<b>Indication of Immediate Medical Attention and Special Treatment Needed</b>	Treat symptomatically. If exposed or concerned, seek medical advice and attention.

### SECTION 5. FIRE-FIGHTING MEASURES

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<b>Extinguishing Media</b>	<u>Suitable Extinguishing Media</u> Foam, extinguishing power, carbon dioxide, water fog. Use dry chemical, or foam, water/fog spray on large fires. On small fires, use carbon dioxide, dry chemicals or water spray. Water can be used to cool fire-exposed containers.  <u>Unsuitable Extinguishing Media</u> Do not use a water jet as an extinguisher, which will spread the fire.
<b>Specific Hazards Arising from the Product</b>	Hazardous combustion products may include the following substances: carbon dioxide, carbon monoxide, irritating or toxic substances.
<b>Special Protective Equipment and Precautions for Firefighters</b>	Use water spray or fog to cool exposed containers. As in any fire, wear a self-contained breathing apparatus with pressure demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Evacuate all non-emergency personnel from the area. Irritating substances, including carbon dioxide, may be released during a fire. In addition, wear other appropriate protective equipment as conditions warrant.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal Precautions, Protective Equipment and Emergency Procedures</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe fume/mist/vapours. Minimize contact with skin or eyes. Provide adequate ventilation. Use appropriate personal protective equipment.
<b>Methods and Material for Containment and Cleaning Up</b>	Stop the leak if it is without risk. Move containers from the spill area. Prevent entry into sewers, water courses, basements, or confined areas. Contain and collect the spillage with non-combustible, absorbent material, e.g., sand, earth, vermiculite, or diatomaceous earth, and place it in a container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
<b>Notification Procedures</b>	Not available
<b>Environmental Precautions</b>	Stop the spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and

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natural waterways. If a spill occurs on water, notify the appropriate authorities.

### SECTION 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

Put on appropriate personal protective equipment (refer to section 8). Provide adequate ventilation in process areas to prevent the formation of vapour. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking, and leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

#### Conditions for Safe Storage (including incompatibilities)

Store in original container protected from direct sunlight in a dry, well-ventilated area, out of direct sunlight and away from incompatible materials (strong oxidizing agents). Keep container tightly closed and sealed until ready for use.

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Control Parameters – Occupational Exposure Limits

Chemical Name	Type	Exposure Limit Values	Source
Polymeric Diphenylmethane Diisocyanate	TWA	0.005 ppm, 0.07 mg/m <sup>3</sup>	AB (CA)
4,4'-Methylenediphenyl Diisocyanate	TWA	0.005 ppm, 0.05 mg/m <sup>3</sup>	AB (CA)
4,4'-Methylenediphenyl Diisocyanate	TWA	0.005 ppm	BC, MB, NWT, NS, NU, ON, PEI, SK (CA)
4,4'-Methylenediphenyl Diisocyanate	TWA	0.005 ppm, 0.051 mg/m <sup>3</sup>	NB (CA)
4,4'-Methylenediphenyl Diisocyanate	CEIL	0.01 ppm	BC (CA)
4,4'-Methylenediphenyl Diisocyanate	CEIL	0.02 ppm, 0.2 mg/m <sup>3</sup>	NWT, NU, YK (CA) OSHA PEL (US)
4,4'-Methylenediphenyl Diisocyanate	CEIL	0.02 ppm	ON (CA)
4,4'-Methylenediphenyl Diisocyanate	STEL	0.015 ppm	NWT, NU, SK (CA)
4,4'-Methylenediphenyl Diisocyanate	TWAEV	0.005 ppm, 0.051 mg/m <sup>3</sup>	QC (CA)

#### Appropriate Engineering Controls

Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits if applicable. If exposure limits have not been established, maintain airborne levels to an acceptable level. Concentrations should be monitored for hazardous substances in the workplace following recognized test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

#### Individual Protection Measures

##### Eye/Face Protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates it is necessary to avoid exposure to liquid splashes, mists, gases, or dust. If contact is possible, the following protection should be worn unless the assessment indicates a higher degree of protection: chemical splash goggles.

##### Skin Protection

If a risk assessment indicates this is necessary, chemical-resistant, impervious gloves complying with an approved standard should always be

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worn when handling chemical products. Considering the parameters specified by the glove manufacturer, check that the gloves retain their protective properties during use. It should be noted that the time to breakthrough for any glove material may differ for different manufacturers. In the cases of mixtures consisting of several substances, the protection time of the gloves cannot be accurately estimated. Personal protective equipment for the body should be selected based on the task and the risks involved and approved by a specialist before handling this product. Appropriate footwear and additional skin protection measures should be chosen based on the task and the risks involved and approved by a specialist before handling this product.

### Respiratory Protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other essential uses.

### Hygiene Measures

Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, using the lavatory, and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing it. Ensure that eyewash stations and safety showers are nearby.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	Brown to light brown liquid
<b>Odour</b>	Slightly musty
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Melting Point / Freezing Point</b>	Not available
<b>Initial Boiling Point and Boiling Range</b>	Not available
<b>Flash Point</b>	> 93.3°C (> 199.9°F) (closed cup method)
<b>Evaporation Rate (BuAe = 1)</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	1.122 – 1.130
<b>Solubility in Water</b>	Not available

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<b>Solubility (other)</b>	Not available
<b>Partition Coefficient, n-octanol / water (logKow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available

### SECTION 10. STABILITY AND REACTIVITY

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<b>Reactivity</b>	None are expected under the recommended handling and storage conditions.
<b>Chemical Stability</b>	Stable under recommended handling and storage conditions (refer to section 7).
<b>Possibility of Hazardous Reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to Avoid</b>	Avoid extreme heat.
<b>Incompatible Materials</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	By heat and fire: carbon monoxide, carbon dioxide, irritating or toxic substances.

### SECTION 11. TOXICOLOGICAL INFORMATION

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#### Toxicological Data

<u>Chemical Name</u>	<u>LC50</u>	<u>LD50</u>
Polymeric Diphenylmethane Diisocyanate	Inhalation, rat: 490 mg/m <sup>3</sup> 4h	Oral, rat: 49 g/kg Dermal, rabbit: >9.4 g/kg
4,4'-Diphenylmethane Diisocyanate	Inhalation, rat: 369 mg/m <sup>3</sup> 4h	Oral, rat: 31600 mg/kg

<b>Acute Toxicity</b>	Harmful if inhaled.
<b>Skin Corrosion/Irritation</b>	Causes skin irritation.
<b>Respiratory and/or Skin Sensitization</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
<b>Serious Eye Damage/Irritation</b>	Causes eye irritation
<b>Specific Target Organ Toxicity - Single Exposure</b>	May cause respiratory irritation.
<b>Specific Target Organ Toxicity - Repeated Exposure</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Reproductive Toxicity</b>	Does not meet the criteria for classification.
<b>Germ Cell Mutagenicity</b>	Does not meet the criteria for classification.

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<b>Aspiration Hazard</b>	Does not meet the criteria for classification.
<b>Information on Likely Routes of Exposure</b>	<u>Inhalation</u> Yes  <u>Skin Contact</u> Yes  <u>Eye Contact</u> Yes  <u>Ingestion</u> Yes
<b>Signs and Symptoms of Exposure</b>	<u>Inhalation</u> Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Causes damage to organs (respiratory system) through prolonged or repeated exposure.  <u>Skin Contact</u> Causes skin irritation. May cause an allergic reaction.  <u>Eye Contact</u> Causes serious eye irritation.  <u>Ingestion</u> No known significant effects or critical hazards.
<b>Potential Chronic Health Effects</b>	Causes damage to organs (respiratory system) through prolonged or repeated exposure.
<b>Carcinogenicity</b>	Does not meet the criteria for classification.

### SECTION 12. ECOLOGICAL INFORMATION

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<b>Ecotoxicity</b>	This product contains no ingredients with ecotoxicity data.
<b>Persistence and Degradability</b>	There is no data available.
<b>Bioaccumulative Potential</b>	There is no data available.
<b>Mobility in Soil</b>	There is no data available.
<b>Other Adverse Effects</b>	There is no data available.

### SECTION 13. DISPOSAL CONSIDERATIONS

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<b>Disposal Methods</b>	Chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. The disposal of this product, solutions, and by-products should comply with environmental protection and waste disposal legislation and any regional local authority requirements.
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### SECTION 14. TRANSPORT INFORMATION

<u>Regulation</u>	<u>UN No.</u>	<u>Proper Shipping Name</u>	<u>Technical Name (for N.O.S. entry)</u>	<u>Transport Hazard Class(es)</u>	<u>Packing Group</u>
TDG	None	Not regulated	Not regulated	Not regulated	Not regulated
49 CFR/DOT	None	Not regulated	Not regulated	Not regulated	Not regulated
IMDG	None	Not regulated	Not regulated	Not regulated	Not regulated
ICAO/IATA	None	Not regulated	Not regulated	Not regulated	Not regulated

**Tariff Classification Number** 3909.50.5000

**Special Precautions** For transport within the user's premises, always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do during an accident or spillage.

**Environmental Hazards** Refer to section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available

### SECTION 15. REGULATORY INFORMATION

#### Canadian Information

Canada inventory (DSL/NDSL)

This product's components comply with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

NPRI

Polymeric Diphenylmethane Diisocyanate and 4,4'-Methylenediphenyl diisocyanate are listed in Part 1 as Group A Substance.

#### US Information

United States Inventory (TSCA 8b)

All components are listed or exempted.

SARA Section 302 Extremely Hazardous Substance

None of the components are listed.

SARA Section 311/312

Acute Toxicity

Skin corrosion or irritation

Respiratory or skin sensitization

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

SARA Section 313 Toxic Release Inventory

Polymeric Diphenylmethane Diisocyanate and 4,4'-Methylenediphenyl diisocyanate are listed.

CERCLA RQ

4,4'-Methylenediphenyl diisocyanate – 5000 lb final RQ; 2270 kg final RQ

State Regulations (MA, PA)

None of the components are listed.



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State Regulations (NY)

Polymeric Diphenylmethane Diisocyanate and 4,4'-Methylenediphenyl diisocyanate are listed.

State Regulation (California Prop. 65)

Not listed

**International Information**

Not available

### SECTION 16. OTHER INFORMATION

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**Date of Latest Revision**

July 4, 2024

**Disclaimer**

The information provided in this document is correct to the best of our knowledge, information, and belief at the date of its publication. This information is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. This information is designed only as general guidance and should not be considered a warranty or quality specification. This information relates only to the specific material designated. Unless specified above, it may not be valid for such material used in combination with other materials or in any process.

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**END OF SAFETY DATA SHEET**