FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-270-422-6860
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL MSDS QUESTIONS & REQUESTS, CALL: 1-270-422-6860

PRODUCT NAME: POLY-SOLV® TPM

1. PRODUCT AND COMPANY IDENTIFICATION

Monument Chemical Kentucky, LLC
2450 Olin Road
Brandenburg, KY 40108
USA

REVISION DATE: 07/30/2013
SUPERCEDES: 01/20/2005
MSDS Number: 100000000044
SYNONYMS: Tripropylene glycol monomethyl ether
CHEMICAL FAMILY: Glycol ether
DESCRIPTION / USE: Solvent
FORMULA: CH30(C3H6O)3H or C10H22O4

2. HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>OSHA Hazard Classification</th>
<th>Eye irritant</th>
</tr>
</thead>
</table>

Routes of Entry: Ingestion Eye Contact
Chemical Interactions: No known or reported interactions.
Medical Conditions Aggravated: No data available

Human Threshold Response Data
Odor Threshold: Not established for product.
Irritation Threshold: Not established for product.
Hazardous Materials Identification System / National Fire Protection Association Classifications

<table>
<thead>
<tr>
<th>Hazard Ratings</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical / Instability</th>
<th>PPI / Special hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NFPA</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
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</tbody>
</table>

Immediate (Acute) Health Effects

Inhalation Toxicity: Not expected to be toxic by inhalation. Not a respiratory irritant.

Skin Toxicity: No significant adverse effects to health would be expected to occur from dermal contact. Exposure to large quantities of this product may result in central nervous system (CNS) depression.

Eye Toxicity: Contact would be expected to cause minor irritation, consisting of transient redness and swelling.

Ingestion Toxicity: Ingestion may cause irritation of the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting or diarrhea. Ingestion of large quantities of this product may result in central nervous system (CNS) depression. Not expected to be toxic by ingestion.

Acute Target Organ Toxicity: Central nervous system

Prolonged (Chronic) Health Effects

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

Reproductive and Developmental Toxicity:

Inhalation: There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.

Skin Contact: Prolonged or repeated exposure may cause minor irritation.

Skin Absorption: Prolonged or repeated exposure, may result in toxic amounts being absorbed through the skin. May cause kidney damage based on animal data.

Ingestion: There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.

Chronic Target Organ Toxicity: Kidneys

Supplemental Health Hazard Information: No additional health information available.
### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS OR CHEMICAL NAME</th>
<th>CAS #</th>
<th>% RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIPROPYLENE GLYCOL MONOMETHYL ETHER</td>
<td>25498-49-1</td>
<td>90 - 100</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Inhalation:** IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops.

**Skin Contact:** IF ON SKIN: Flush skin with water for 15 minutes. Take off all contaminated clothing. Seek medical attention if irritation develops.

**Eye Contact:** IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.

**Ingestion:** IF SWALLOWED: Immediately drink water to dilute. Seek medical attention if symptoms develop. Never give anything by mouth to an unconscious person.

### 5. FIRE FIGHTING MEASURES

**Flammability Summary (OSHA):** Combustible above 93 deg. C / 200 deg. F.

**Flammable Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>121 DEG°C open cup</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>270 DEG°C</td>
</tr>
<tr>
<td>Fire / Explosion Hazards</td>
<td>Material may be ignited only if preheated to high temperatures, for example in a fire.</td>
</tr>
</tbody>
</table>

**Extinguishing Media:** Use alcohol foam, carbon dioxide, dry chemical or water spray when fighting fires. Water or foam may cause frothing if liquid solvent or oil is burning but it still may be a useful extinguishing agent if carefully applied to the fire.

**Fire Fighting Instructions:** In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus. Use water to cool containers.

**Hazardous Combustion Products:** Carbon monoxide, Carbon dioxide

**Upper Flammable / Explosive Limit, % in air:** 7 Vol%

**Lower Flammable / Explosive Limit, % in air:** 1.1 Vol%
6. ACCIDENTAL RELEASE MEASURES

Class Determination: 

Personal Protection for Emergency Situations: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

Spill Mitigation Procedures
Air Release: Vapors may be suppressed by the use of water fog. Contain all liquids for treatment or disposal.
Water Release: This material is miscible in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Continue to handle as described in land spill.
Land Release: Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Decontaminate all clothing and the spill area using a detergent and flush with large amounts of water. Contain all liquids for treatment or disposal.

Additional Spill Information: Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing mist or vapor.
Storage: Store in a cool, dry and well ventilated place. Isolate from incompatible materials.
Shelf Life Limitations: See label or certificate of analysis for shelf life if applicable.
Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."
Do Not Store At temperatures Above: 49 DEG°C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: Local exhaust ventilation is recommended if vapors, mists or aerosols are generated. Otherwise, use general exhaust ventilation.

Protective Equipment for Routine Use of Product
Respiratory Protection: Respiratory protection not normally needed.
Respirator Type: Not normally required.
Skin Protection: Wear impervious gloves to avoid skin contact.
Eye Protection: Use safety glasses with side shields.
Protective Clothing Type: Impervious
General Protective Measures: Emergency eyewash should be provided in the immediate work area.

Exposure Limit Data

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>Name of Limit</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Data Found</td>
<td></td>
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<td></td>
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</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical State: liquid
- Form: clear, liquid
- Color: colorless
- Odor: mild, characteristic
- Molecular Weight: 206.32
- Specific Gravity: 0.965
- pH: Not applicable
- Boiling Point: 240 DEG°C
- Freezing Point: -78 DEG°C
- Melting Point: No data
- Density: 8.03lb/gal
- Vapor Pressure: 0.02 mmHg (@ 25 Deg. C)
- Vapor Density: 7.11
- Viscosity: No data
- Fat Solubility: No data
- Solubility in Water: Completely miscible
- Partition coefficient n-octanol/water: No data.
- Evaporation Rate: No data
- Oxidizing: No data
- Volatiles, % by vol.: No data
- VOC Content: No data
- HAP Content: 0.00 wt%/wt / 0.00 lb/gal

10. STABILITY AND REACTIVITY

- Stability and Reactivity Summary: Stable under normal conditions. Not sensitive to mechanical shock. Not sensitive to static discharge. Product will not undergo hazardous polymerization.
- Conditions to Avoid: Sparks, open flame, other ignition sources, and elevated temperatures.
11. TOXICOLOGICAL INFORMATION

**Component Animal Toxicology**

**Oral LD50 value:**
- TRIPROPYLENE GLYCOL MONOMETHYL ETHER
  - LD50 = 4,900 mg/kg Rat

**Dermal LD50 value:**
- TRIPROPYLENE GLYCOL MONOMETHYL ETHER
  - LD50 > 2,000 mg/kg Rabbit

**Inhalation LC50 value:**
- TRIPROPYLENE GLYCOL MONOMETHYL ETHER
  - Inhalation LC50 1 h > 200 MG/L Rat

**Product Animal Toxicity**

**Oral LD50 value:**
- LD50 > 5,000 mg/kg Rat

**Dermal LD50 value:**
- LD50 > 2,000 mg/kg Rabbit

**Inhalation LC50 value:**
- LC50 1 h > 200 MG/L Rat

**Skin Irritation:**
- Not expected to be irritating to the skin.

**Eye Irritation:**
- This material is expected to be slightly irritating.

**Skin Sensitization:**
- This material is not known or reported to be a skin or respiratory sensitizer.

**Acute Toxicity:**
- There are no known or reported target organ effects from acute exposure.

**Subchronic / Chronic Toxicity:**
- Not known or reported to cause subchronic or chronic toxicity.

**TRIPROPYLENE GLYCOL MONOMETHYL ETHER**
- Animal studies suggest that subchronic/chronic (repeated) overexposure by dermal contact may result in narcosis and damage to the kidneys.
Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

TRIPROPYLENE GLYCOL MONOMETHYL ETHER

This chemical has been tested in laboratory animals and no evidence of teratogenicity, embryotoxicity or fetotoxicity was seen.

Mutagenicity: Not known or reported to be mutagenic.

TRIPROPYLENE GLYCOL MONOMETHYL ETHER

This product was determined to be non-mutagenic in the Ames Assay. There was also no evidence of mutagenicity found in an in vitro Unscheduled DNA Synthesis Assay in Rodent Hepatocytes.

Carcinogenicity: This chemical is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

TRIPROPYLENE GLYCOL MONOMETHYL ETHER

This chemical is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

12. ECOLOGICAL INFORMATION

Ecological Toxicity Values for: TRIPROPYLENE GLYCOL MONOMETHYL ETHER

Fathead minnow (Pimephales promelas), 96 h LC50 = 11,619 mg/l

Daphnia magna, 48 h LC50> 10,000 mg/l

13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.
Waste Disposal Summary: If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

14. TRANSPORT INFORMATION

Land (US DOT): NOT REGULATED AS A DOT HAZARDOUS MATERIAL
Water (IMDG): NOT REGULATED AS A HAZARDOUS MATERIAL,
Flash Point: 121 DEG°C
Air (IATA): NOT REGULATED AS A HAZARDOUS MATERIAL,
Emergency Response Guide Number: Not applicable

15. REGULATORY INFORMATION

UNITED STATES:
Toxic Substances Control Act (TSCA): The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.
EPA Pesticide Registration Number: None established
FIFRA Listing of Pesticide Chemicals (40 CFR 180):
Not registered in the US under FIFRA.

Superfund Amendments and Reauthorization Act (SARA) Title III:
Hazard Categories Sections 311 / 312 (40 CFR 370.2):
Health Immediate (Acute) Health Hazard
Physical None


Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:
ZUS_SAR302 TPQ (threshold planning quantity) None established

Reportable Quantity (49 CFR 172.101, Appendix):
ZUS_CERCLA Reportable quantity None established
ZUS_SAR302 Reportable quantity None established

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components:
ZUS_SAR313 De minimis concentration None established
Clean Air Act Toxic ARP Section 112:
CAA 112R None established

Clean Air Act Socmi:
HON SOC None established

Clean Air Act VOC Section 111:
CAA 111 None established

Clean Air Act Haz. Air Pollutants Section 112:
ZUS_CAAHAP None established
ZUS_CAAHRP None established
CAA AP None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>COMPONENT NAME</th>
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<tbody>
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New Jersey:

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Massachusetts:

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California Proposition 65:

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WHMIS Hazard Classification:

None established
16. OTHER INFORMATION

MSDS REVISION STATUS:
SECTION REVISED: First formulated version in SAP.
Major References: Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. MONUMENT CHEMICAL BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT MONUMENT CHEMICAL MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.