Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: Poly(2-methoxyethyl acrylate), solution in toluene
Catalog Number(s): 891
Molecular Formula: (C$_6$H$_{10}$O$_3$)$_x$
Company: Scientific Polymer Products, Inc.
6265 Dean Parkway
Ontario, NY 14519
Telephone: 585/265-0413
Fax: 585/265-1390
Website: www.scipoly.com
Emergency Phone Number: 800-255-3924 (CHEM TEL)

Section 2: Hazards Identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids, Category 2, H225
Skin irritation, Category 2, H315
Reproductive toxicity, Category 2, H361
Specific target organ toxicity- single exposure, Category 3, Central nervous system, H336
Specific target organ toxicity- repeated exposure, Category 2, H373
Aspiration hazard, Category 1, H304

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)
H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statement(s)
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>75 - 80%</td>
</tr>
<tr>
<td>Poly(2-methoxyethyl acrylate)</td>
<td>28628-64-0</td>
<td>20 - 25%</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed
No data available.
Section 5: Fire-Fighting Measures

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides

Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
Use water spray to cool unopened containers

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13)

Reference to other sections
For disposal see section 13.

Section 7: Handling and Storage

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion proof equipment. Keep away from sources of ignition-No smoking. Take measure to prevent the buildup of electrostatic charge. For precautions see section 2.

Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Specific end use(s)
Laboratory chemicals, Manufacture of substances

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>TWA: 20ppm</td>
<td>(Vacated)TWA: 100 ppm</td>
<td>IDLH: 500ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Vacated)TWA: 375mg/m³</td>
<td>TWA: 100ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ceiling: 300ppm</td>
<td>TWA: 750mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Vacated)STEL: 150ppm</td>
<td>STEL: 100ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Vacated)STEL: 560mg/m³</td>
<td>STEL: 560mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 200ppm</td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td>Quebec</td>
<td>Mexico OEL (TWA)</td>
<td>Ontario TWA EV</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------</td>
<td>-----------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>TWA: 50ppm</td>
<td>TWA: 50ppm</td>
<td>TWA: 20ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA: 188mg/m³</td>
<td>TWA: 188mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Exposure controls
Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air purifying respirators are appropriate use a full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage of spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

a) Appearance Form: Liquid
b) Odor Sweet, pungent, Benzene like
c) Odor Threshold No data available
d) pH No data available
e) Melting point/freezing point No data available
f) Initial boiling point and boiling range 110 – 111°C (230 – 232°F)
g) Flash point 4°C/ 39.2°F
h) Evaporation rate No data available
i) Flammability (solid, gas) No data available
j) Flammability or explosive limits
   Upper 6.70%
   Lower 1.40%
k) Vapor pressure No data available
l) Vapor density No data available
m) Relative density No data available
n) Water solubility No data available
o) Partition coefficient: n-octanol/water No data available
p) Auto-ignition temperature 535.0°C (995.0°F)
q) Decomposition temperature: No data available
r) Viscosity: No data available
s) Explosive properties: No data available
t) Oxidizing properties: No data available

Other safety information
No data available

### Section 10: Stability and Reactivity

**Reactivity**
No data available

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reactions**
Vapors may form an explosive mixture with air

**Conditions to avoid**
Heat, flames and sparks. Extremes of temperature and direct sunlight

**Incompatible materials**
Strong oxidizing agents

**Hazardous decomposition products**
Other decomposition products - no data available

In the event of fire: see section 5

### Section 11: Toxicological Information

**Acute toxicity**

**Product information**
No acute toxicity information is available for this product

**Oral LD50**
Based on ATE data, the classification criteria are not met. ATE>2000mg/kg

**Dermal LD50**
Based on ATE data, the classification criteria are not met. ATE>2000mg/kg

**Vapor LC50**
Based on ATE data, the classification criteria are not met. ATE>2000mg/kg

**Component information**

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>&gt;5000mg/kg (Rat)</td>
<td>12000mg/kg (Rabbit)</td>
<td>26700ppm (Rat) 1 h</td>
</tr>
</tbody>
</table>

**Toxicologically synergistic Products**
No data available

**Delayed and immediate effects as well as chronic effects from short and long term exposure**

**Irritation**
No data available

**Sensitization**
No data available

**Carcinogenicity**
The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Poly(2-methoxyethyl acrylate)</td>
<td>28628-64-0</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

**Mutagenic effects**
No data available

**Reproductive effects**
No data available

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Poly(2-methoxyethyl acrylate), solution in toluene
Developmental effects  
No data available

Teratogenicity  
No data available

STOT - single exposure  
Central Nervous System (CNS)
STOT - repeated exposure  
None known

Aspiration hazard  
No data available

Symptoms/effects, both acute and delayed  
Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Endocrine disruptor information  
No data available

Other adverse effects  
The toxicological properties have not been fully investigated

### Section 12: Ecological Information

**Ecotoxicity**
Do not empty into drains

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>12.5mg/L EC50 = 72h 433 Mg/L EC50 &gt; 96 h</td>
<td>50-70mg/L LC50 96 h 5-7mg/L LC50 96 h 15-19mg/L LC50 96 h 28mg/L LC50 96 h 12mg/L LC50 96 h</td>
<td>EC50 = 19.7mg/L 30 min</td>
<td>11.5mg/L EC50 = 48 h 5.46 - 9.83mg/L EC50 48 h</td>
</tr>
</tbody>
</table>

**Persistence and degradability**  
No data available

**Bioaccumulative potential**  
No data available

**Mobility in soil**  
No data available

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>2.65</td>
</tr>
</tbody>
</table>

### Section 13: Disposal Considerations

**Waste treatment methods**

**Product**
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional and national hazardous waste regulations to ensure complete and accurate classification.

**Contaminated packaging**
Dispose of as unused product.

### Section 14: Transport Information

**DOT (US)**
UN number: 1294  
Class: 3  
Packing group: II

Proper shipping name: Toluene, solution
Reportable quantity (RQ): 167 lbs

Poison Inhalation Hazard: No

Poly(2-methoxyethyl acrylate), solution in toluene
Poly(2-methoxyethyl acrylate), solution in toluene

**IMDG**
- UN number: 1294
- Class: 3
- Packing group: II
- EMS-No: F-E, S-D
- Proper shipping name: TOLUENE, SOLUTION

**IATA**
- UN number: 1294
- Class: 3
- Packing group: II
- Proper shipping name: Toluene, solution

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**Section 15: Regulatory Information**

**SARA 302 Components**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
The following components are subject to reporting levels established by SARA Title III, Section 313:

- **CAS No.**
  - Toluene: 108-88-3

**SARA 311/312 Hazards**
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**
- **CAS No.**
  - Toluene: 108-88-3

**Pennsylvania Right To Know Components**
- **CAS No.**
  - Toluene: 108-88-3
  - Poly(2-methoxyethyl acrylate): 28628-64-0

**New Jersey Right To Know Components**
- **CAS No.**
  - Toluene: 108-88-3
  - Poly(2-methoxyethyl acrylate): 28628-64-0

**California Prop. 65 Components**
WARNING This product contains a chemical known to the State of California to cause birth defects or other reproductive harm
- **CAS No.**
  - Toluene: 108-88-3

**Section 16: Other Information**

**HMIS Rating**
- **Health:** 2
- **Flammability:** 3
- **Reactivity:** 0

**NFPA Rating**
- **Health:** 2
- **Flammability:** 3
- **Reactivity:** 0

This material is intended for laboratory use only. It is not sold or intended for drug, household or other uses. The information represents the most accurate and complete data currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.