Section 1: Chemical Product and Company Identification

Cat#: 18814
Part Name: FORMALDEHYDE METHANOL FREE 16%
Supplier: Polysciences, Inc.
400 Valley Road
Warrington, PA 18976 USA
MSDS Telephone #215-343-6484 Emergency only #215-378-4526

Identified uses: Laboratory use, manufacture of substances

Section 2: Hazards Identification

Hazard Overview
Cancer hazard.
Causes eye irritation.
Causes skin irritation.
Harmful if absorbed through skin.
Harmful if inhaled.
Harmful if swallowed.
May cause allergic skin reaction.

GHS Classification

Acute Toxicity Inhalation Category 5
Acute Toxicity Oral Category 4
Carcinogen Category 1B
Eye Irritation Category 2A
Skin Irritant Category 2
Skin Sensitizer Category 1B

Signal word: Warning

Hazard and Precautionary Statements

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H350 May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
P285 In case of inadequate ventilation wear respiratory protection.
P301A IF SWALLOWED do not induce vomiting. Do not give anything to drink. Obtain medical attention without delay.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304A IF INHALED: Begin rescue breathing if necessary and contact medical personnel.
P315 Get immediate medical advice/attention.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P351 Rinse cautiously with water for several minutes.

NFPA Rating
Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Item#</th>
<th>Name</th>
<th>EINECS</th>
<th>CAS#</th>
<th>% in product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Formaldehyde</td>
<td>200-001-8</td>
<td>0000050000</td>
<td>11 - 20</td>
</tr>
<tr>
<td>2</td>
<td>Water</td>
<td>231-791-2</td>
<td>0007732185</td>
<td>81 - 90</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

Begin rescue breathing if necessary and contact medical personnel.
Contact medical personnel immediately.
Flush eyes with flowing water for at least 15 minutes.
If breathing is difficult, contact emergency personnel.
If swallowed, wash out mouth with water if person is conscious.
Remove to fresh air.
Wash skin with deluge of water for at least 15 minutes.

Section 5: Fire Fighting Measures

Flash point, deg F.: >60C
Method: no data
UEL: 73% LEL: 7%
Autoignition temperature, deg. F.: no data
Flammability Classification: no data
Flame Propagation Rate: no data

Section 6: Accidental Release Measures

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

Absorb liquids on absorbent material.
Contain spilled liquids.
Protect personnel from exposure.
Use appropriate personal protective equipment.

Section 7: Handling and Storage

Store at room temp

Section 8: Exposure Controls/Personal Protection

OSHA (ACGIH) Exposure Limits

<table>
<thead>
<tr>
<th>CAS#: 0000050000</th>
<th>IDLH: 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>Not classi</td>
</tr>
<tr>
<td>ACGIH</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS#: 0007732185</th>
<th>IDLH: NE</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>NE</td>
</tr>
<tr>
<td>ACGIH</td>
<td>NE</td>
</tr>
</tbody>
</table>

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

Use process enclosures, local exhaust ventilation, or other engineering controls.
Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.
Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not intentional immersion of the hands into the product.
Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

Section 9: Physical and Chemical Properties
Section 10: Stability and Reactivity
Chemical Stabilit\(\text{stable}\)
Conditions to Avoid: cool or extreme temperatures
Incompatibility with other materials: free radical sources, phenol, strong acids, alkalis
Hazardous Decomposition Products: none known
Hazardous Polymerization: will not occur

Section 11: Toxicological Information
Acute Data: LD50 oral (rat) - 100 mg/kg; LC50 inhalation (rabbit) - 270 \(\mu\)L/kg; Irritation data: eye (rabbit) 750 \(\mu\)g; severe; Investigated as a tumorigen, mutagen and reproductive effector
Subchronic data: no data

Section 12: Ecological Information
LC50 - 96h - fish - 10-100 mg/L

Section 13: Disposal Considerations
The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State and Local Regulations.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Waste Code</th>
<th>Regulated Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000050000</td>
<td>U122</td>
<td>Formaldehyde</td>
</tr>
<tr>
<td>0007732185</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

Section 14: Transportation Data
Proper Shipping Name: Aviation Regulated Liquid, n.o.s.
Chemical Name: Formaldehyde
UN: UN3334
Class: 9
PG: III

Section 15: Regulatory Information
All components of this product are on the TSCA public inventory.

All components of this product are on the TSCA public inventory.

Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000050000</td>
<td>Yes</td>
<td>no</td>
</tr>
<tr>
<td>0007732185</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

State Regulatory Information: If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>not listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000050000</td>
<td></td>
</tr>
<tr>
<td>0007732185</td>
<td></td>
</tr>
</tbody>
</table>

SARA Toxic Release Chemicals (as defined in Section 313 of SARA Title III)
This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>de minimis conc. %</th>
<th>Rep. Thres.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000050000</td>
<td>Formaldehyde</td>
<td>0.1</td>
<td>not listed</td>
</tr>
<tr>
<td>0007732185</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

SARA Extremely Hazardous Substances and TPQs
This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>TPQ (pounds)</th>
<th>EHS-RQ (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000050000</td>
<td>Formaldehyde</td>
<td>500</td>
<td>100</td>
</tr>
</tbody>
</table>
Section 16: Other Information

POLYSCIENCES, INC. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. POLYSCIENCES, INC. makes no representations or warranties, either expressed or implied of merchantability, fitness for particular purposes with respect to the information set forth herein or to which the information refers. Accordingly, POLYSCIENCES, INC. will not be responsible for damages resulting from the use of or reliance upon this information.

END OF MSDS