Section 1: Chemical Product and Company Identification

Cat#: 25094G
Part Name: 10% FORMALIN AQUEOUS SOLUTION
Supplier: Polysciences, Inc.
400 Valley Road
Warrington, PA 18976 USA
MSDS Telephone #215-343-6484 Emergency only #215-378-4526

Section 2: Hazards Identification

Hazard Overview
Causes eye burns.
Causes skin, eye and respiratory tract irritation.
Flammable liquid and vapor.
Harmful if inhaled, absorbed through skin or swallowed.
May be fatal if inhaled, absorbed through skin or swallowed.
Suspect cancer hazard.
GHS Classification
Carcinogen Category 2
Flammable Liquids Category 3
Serious Eye Damage Category 1C
Skin Irritant Cat 2, Acute Inhalation Cat 4, Eye Irritation Cat 2B
Skin Irritant Cat 2, Acute Oral Toxicity Cat 4, Acute Inhalation Cat 4,

Signal word: Danger

Hazard and Precautionary Statements
H226 Flammable liquid and vapour.
H300 + H310 Fatal if swallowed, in contact with skin or if inhaled
H302 + H312 Harmful if swallowed or, in contact with skin or if inhaled
H318 Causes serious eye damage.
H351 Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P280A Wear protective gloves
P285 In case of inadequate ventilation wear respiratory protection.
P301D IF SWALLOWED, induce vomiting as directed by medical personnel.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305B IF IN EYES, Separate eyelids with finger tips.
P314 Get medical advice/attention if you feel unwell.
P351 Rinse cautiously with water for several minutes.
P501 Dispose of contents/container to proper waste area in accordance with institutional practices and local, state or federal regualtions.

NFPA Rating

Hazard Ratings:
These ratings are Polysciences’ Inc. own assemsments of the properties of the material using the ANSI/NFPA 704 Standard.
Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed the information is not available.

Health Flammability Reactivity
3 3 2

Section 3: Composition/ Information on Ingredients

Note: Items listed with a CASRN... number have no CAS# available.
Section 4: First Aid Measures
Contact medical personnel if discomfort persists.
Flush eyes with flowing water for at least 15 minutes.
If swallowed, induce vomiting as directed by medical personnel.
Separate eyelids with finger tips.
Wash skin with deluge of water for at least 15 minutes.

Section 5: Fire Fighting Measures
Flash point, deg F.: 150
Method: CC
UEL: 73
LEL: 7
Autoignition temperature, deg. F.: 572F
Flammability Classification: IIIA
Flame Propagation Rate: no data
Hazardous Combustion Products: formaldehyde

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.
Protect personnel from exposure.
Ventilate the area.

Section 7: Handling and Storage
Store at room temp

Section 8: Exposure Controls/ Personal Protection
OSHA (ACGIH) Exposure Limits

<table>
<thead>
<tr>
<th>CAS#</th>
<th>IDLH</th>
<th>TWA ppm</th>
<th>mg/</th>
<th>STEL ppm</th>
<th>mg/m3</th>
<th>CEILING ppm</th>
<th>mg/m3</th>
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</thead>
<tbody>
<tr>
<td>0000050000</td>
<td>20</td>
<td>--</td>
<td>--</td>
<td>2/15 mi</td>
<td>NE</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA</td>
<td>Not classified</td>
<td>--</td>
<td>2/15 mi</td>
<td>NE</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>0.3 c</td>
<td>0.37</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</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 chemical splash goggles and face shield.
Use latex or equivalent 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
Formula: mixture
Formula Weight: mixture
Boiling point: 205F
Melting point: no data
Solubility: soluble
Vapor pressure: 1.3 mmHg at 20C
Vapor density: 1.04 formaldehyde
Specific gravity: 1.08
pH: 2.8
Appearance: clear colorless liquid

Section 10: Stability and Reactivity
Chemical Stabilit: stable
Conditions to Avoid: none
Incompatibility with other materials: strong oxidizers; amines; strong acids

Page 2 of 4
Section 11: Toxicological Information

Acute Data: LD50 oral rat formaldehyde 800 mg/Kg, methanol 9100 mg/Kg; LD50 dermal rabbit formaldehyde 270 mg/Kg, methanol 15840 mg/Kg

Subchronic data: sensitization; mutagenic activity in some cellular systems

Section 12: Ecological Information

no data

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>
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<tbody>
<tr>
<td>0000050000</td>
<td>U122</td>
<td>Formaldehyde</td>
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<tr>
<td>0007732185</td>
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</table>

Section 14: Transportation Data

 Proper Shipping Name: FORMALDEHYDE, SOLUTIONS
 Chemical Name
 UN UN2209
 Class 8
 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 identifies 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>
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<tr>
<td>0007732185</td>
<td>no</td>
<td>no</td>
</tr>
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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>
</tr>
</thead>
<tbody>
<tr>
<td>0000050000 not listed</td>
</tr>
<tr>
<td>0007732185 not listed</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>
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</thead>
<tbody>
<tr>
<td>0000050000</td>
<td>Formaldehyde</td>
<td>500</td>
<td>100</td>
</tr>
<tr>
<td>0007732185</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

CERCLA

The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302, Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>RQ (pounds)</th>
</tr>
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<tbody>
<tr>
<td>0000050000</td>
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<tr>
<td>0007732185</td>
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</tbody>
</table>

Section 16: Other Information
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END OF MSDS