1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: Formaldehyde solution

Product Number: 252549
Brand: Sigma-Aldrich

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO  63103
USA

Telephone: +1 800-325-5832
Fax: +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone #: +1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 4), H227
Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Skin sensitisation (Category 1), H317
Germ cell mutagenicity (Category 2), H341
Carcinogenicity (Category 1A), H350
Specific target organ toxicity - single exposure (Category 1), H370
Acute aquatic toxicity (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)
H227: Combustible liquid.
H301 + H311 + H331: Toxic if swallowed, in contact with skin or if inhaled
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
H370 Causes damage to organs.
H402 Harmful to aquatic life.

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/sparks/open flames/hot surfaces. No smoking.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Synonyms: Formalin

Formula: CH₂OCH₂O

Molecular weight: 30.03 g/mol

Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Flam. Liq.; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 1A; Aquatic Acute 3; H227, H301 + H311 + H331, H314, H317, H341, H350, H402</td>
<td>&gt;= 30 - &lt; 50 %</td>
</tr>
<tr>
<td>Methanol</td>
<td>Flam. Liq.; Acute Tox. 3; STOT SE 1; H225, H301 + H311 + H331, H370</td>
<td>&gt;= 10 - &lt; 20 %</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.
4. FIRST AID MEASURES

4.1 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 air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

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

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture
No data available

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

5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

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

6.2 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.

6.3 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). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
7.2 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.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>C</td>
<td>0.300000 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Upper Respiratory Tract irritation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye irritation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Suspected human carcinogen</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sensitizer</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td></td>
<td></td>
<td>0.016000 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
<tr>
<td>Potential Occupational Carcinogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Appendix A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td>0.100000 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
<tr>
<td>Potential Occupational Carcinogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Appendix A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 minute ceiling value</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance listed; for more information see OSHA document 1910.1048</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance listed; for more information see OSHA document 1910.1048</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td></td>
<td></td>
<td>0.750000 ppm</td>
<td>OSHA Specifically Regulated Chemicals/Carcinogens</td>
</tr>
<tr>
<td>1910.1048</td>
<td></td>
<td></td>
<td>This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde</td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td></td>
<td></td>
<td>2.000000 ppm</td>
<td>OSHA Specifically Regulated Chemicals/Carcinogens</td>
</tr>
<tr>
<td>1910.1048</td>
<td></td>
<td></td>
<td>This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td></td>
<td></td>
<td>0.016000 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
<tr>
<td>Potential Occupational Carcinogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formalin is an aqueous solution that is 37% formaldehyde by weight; inhibited solutions usually contain 6-12% methyl alcohol. Also see specific listings for Formaldehyde and Methyl alcohol.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Appendix A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td>0.100000 ppm</td>
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</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formalin is an aqueous solution that is 37% formaldehyde by</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Formalin is an aqueous solution that is 37% formaldehyde by weight; inhibited solutions usually contain 6-12% methyl alcohol. Also see specific listings for Formaldehyde and Methyl alcohol.

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA</th>
<th>USA. ACGIH Threshold Limit Values (TLV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>200 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>

### Health Effects

- **Potential Occupational Carcinogen**
- Formalin is an aqueous solution that is 37% formaldehyde by weight; inhibited solutions usually contain 6-12% methyl alcohol. Also see specific listings for Formaldehyde and Methyl alcohol.
- See Appendix A

- **Dermal Sensitization**
- Respiratory sensitization
- Upper Respiratory Tract irritation
- Eye irritation
- 2015 Adoption
- Suspected human carcinogen

### Exposure Limits

- **TWA** 0.016 ppm USA. NIOSH Recommended Exposure Limits
- **PEL** 0.75 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107)
- **STEL** 2 ppm California permissible exposure limits for chemical contaminants (Title 8, Article 107)

### Methanol

- **TWA** 200 ppm USA. ACGIH Threshold Limit Values (TLV)

### Substances for which there is a Biological Exposure Index or Indices

- Danger of cutaneous absorption

### Potential for dermal absorption
<table>
<thead>
<tr>
<th></th>
<th>ST</th>
<th>USD. NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>250.000000 ppm</td>
<td>325.000000 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Potential for dermal absorption</strong></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>200.000000 ppm</td>
<td>260.000000 mg/m3</td>
</tr>
<tr>
<td></td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>The value in mg/m3 is approximate.</strong></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>200 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td><strong>Headache</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Nausea</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dizziness</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Eye damage</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Substances for which there is a Biological Exposure Index or Indices (see BEI® section)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Danger of cutaneous absorption</strong></td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td>250 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td><strong>Headache</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Nausea</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Dizziness</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Eye damage</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Substances for which there is a Biological Exposure Index or Indices (see BEI® section)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Danger of cutaneous absorption</strong></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>200 ppm</td>
<td>260 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Potential for dermal absorption</strong></td>
<td></td>
</tr>
<tr>
<td>ST</td>
<td>250 ppm</td>
<td>325 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Potential for dermal absorption</strong></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>200 ppm</td>
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</tr>
<tr>
<td></td>
<td><strong>Potential for dermal absorption</strong></td>
<td></td>
</tr>
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<td>STEL</td>
<td>250 ppm</td>
<td>325 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Potential for dermal absorption</strong></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>200 ppm</td>
<td>260 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>The value in mg/m3 is approximate.</strong></td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td>250 ppm</td>
<td>325 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Skin notation</strong></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>200 ppm</td>
<td>260 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Skin notation</strong></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>1,000 ppm</td>
<td>California permissible exposure limits for chemical contaminants (Title 8, Article 107)</td>
</tr>
<tr>
<td></td>
<td><strong>Skin</strong></td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td>200 ppm</td>
<td>260 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Skin</strong></td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td>250 ppm</td>
<td>325 mg/m3</td>
</tr>
<tr>
<td></td>
<td><strong>Skin</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Parameters</th>
<th>Value</th>
<th>Biological specimen</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>Methanol</td>
<td>15.0000</td>
<td>mg/l</td>
<td>ACGIH - Biological Exposure Indices (BEI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Remarks End of shift (As soon as possible after exposure ceases)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameters</th>
<th>Value</th>
<th>Biological specimen</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td></td>
<td>15 mg/l</td>
<td>Urine</td>
<td>ACGIH - Biological Exposure Indices (BEI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Remarks End of shift (As soon as possible after exposure ceases)</td>
</tr>
</tbody>
</table>

### 8.2 Exposure controls

**Appropriate engineering controls**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment**

**Eye/face protection**

Tightly fitting safety goggles. Face shield (8-inch minimum). 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.

- **Full contact**
  - Material: Nitrile rubber
  - Minimum layer thickness: 0.4 mm
  - Break through time: 480 min
  - Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

- **Splash contact**
  - Material: Nitrile rubber
  - Minimum layer thickness: 0.2 mm
  - Break through time: 60 min
  - Material tested: Dermatril® P (KCL 743 / Aldrich Z677388, Size M)

- **Body Protection**
  - Complete suit protecting against chemicals. 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 or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

---

9. **PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1 Information on basic physical and chemical properties

- **a) Appearance**
  - Form: liquid, clear
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour: colourless</td>
<td></td>
</tr>
<tr>
<td>b) Odour</td>
<td>pungent</td>
</tr>
<tr>
<td>c) Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>No data available</td>
</tr>
<tr>
<td>e) Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>100 °C (212 °F)</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>64 °C (147 °F) - closed cup</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>1</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>j) Upper/lower flammability or explosive limits</td>
<td>Upper explosion limit: 70 %(V)</td>
</tr>
<tr>
<td>k) Vapour pressure</td>
<td>53 hPa (40 mmHg) at 39 °C (102 °F)</td>
</tr>
<tr>
<td>l) Vapour density</td>
<td>1.04 - (Air = 1.0)</td>
</tr>
<tr>
<td>m) Relative density</td>
<td>1.09 g/cm3 at 25 °C (77 °F)</td>
</tr>
<tr>
<td>n) Water solubility</td>
<td>completely soluble</td>
</tr>
<tr>
<td>o) Partition coefficient: n-octanol/water</td>
<td>log Pow: 0.35</td>
</tr>
<tr>
<td>p) Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>q) Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>r) Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>s) Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>t) Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2 Other safety information

Relative vapour density 1.04 - (Air = 1.0)

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.
Contains the following stabiliser(s):
Methanol (>=10 - <15 %)

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Strong oxidizing agents, Aniline, Phenol, Isocyanates, Acid anhydrides, Strong acids, Strong bases, Amines, Peroxides, Acid chlorides, Alkali metals, Reducing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
Hazardous decomposition products formed under fire conditions. - Carbon oxides
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
No data available

Inhalation: No data available
Dermal: No data available
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
May cause sensitisation by skin contact.

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 1 - Group 1: Carcinogenic to humans (Formaldehyde)
NTP: Known to be human carcinogen (Formaldehyde)
OSHA: OSHA specifically regulated carcinogen (Formaldehyde)

Reproductive toxicity
No data available
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: Not available

Warning: contains methanol. May be fatal or cause blindness if swallowed. Cannot be made nonpoisonous.

Liver - Irregularities - Based on Human Evidence
Stomach - Irregularities - Based on Human Evidence
Liver - Irregularities - Based on Human Evidence (Formaldehyde)
Stomach - Irregularities - Based on Human Evidence (Methanol)

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available
12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 2209  Class: 8  Packing group: III
Proper shipping name: Formaldehyde solutions
Reportable Quantity (RQ): 270 lbs
Poison Inhalation Hazard: No

IMDG
UN number: 2209  Class: 8  Packing group: III  EMS-No: F-A, S-B
Proper shipping name: FORMALDEHYDE SOLUTION

IATA
UN number: 2209  Class: 8  Packing group: III
Proper shipping name: Formaldehyde solution

15. REGULATORY INFORMATION

SARA 302 Components
The following components are subject to reporting levels established by SARA Title III, Section 302:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>2007-07-01</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
</tbody>
</table>

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

Massachusetts Right To Know Components

<table>
<thead>
<tr>
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<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
</tbody>
</table>

Pennsylvania Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
</tbody>
</table>
New Jersey Right To Know Components

<table>
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<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
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<td>7732-18-5</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
</tbody>
</table>

California Prop. 65 Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>2007-09-28</td>
</tr>
</tbody>
</table>

WARNING! This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Methanol

67-56-1

2012-03-16

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.          Acute toxicity
Aquatic Acute       Acute aquatic toxicity
Carc.               Carcinogenicity
Eye Dam.            Serious eye damage
Flam. Liq.          Flammable liquids
H225                Highly flammable liquid and vapour.
H227                Combustible liquid.
H301                Toxic if swallowed.
H301 + H311 +       Toxic if swallowed, in contact with skin or if inhaled
H331                Toxic if inhaled.
H311                Toxic in contact with skin.
H314                Causes severe skin burns and eye damage.
H317                May cause an allergic skin reaction.
H318                Causes serious eye damage.
H331                Toxic if inhaled.
H341                Suspected of causing genetic defects.
H350                May cause cancer.
H370                Causes damage to organs.
H402                Harmful to aquatic life.
Muta.               Germ cell mutagenicity
Skin Corr.          Skin corrosion
Skin Sens.          Skin sensitisation
STOT SE             Specific target organ toxicity - single exposure

HMIS Rating

Health hazard: 3
Chronic Health Hazard: *
Flammability: 2
Physical Hazard: 0

NFPA Rating

Health hazard: 3
Fire Hazard: 2
Reactivity Hazard: 0

Further information

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Product Safety – Americas Region
1-800-521-8956

Version: 4.24 Revision Date: 09/23/2016 Print Date: 10/12/2016

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