SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Alcoholic Formalin
SUPPLIER: Avantik Biogroup.
ADDRESS: 32 Commerce St. Springfield, NJ 07081
CHEMTREC PHONE: 800-424-9300

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

<table>
<thead>
<tr>
<th>Physical</th>
<th>Health</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Hazardous</td>
<td>Eye Damage Category 1</td>
<td>Not Hazardous</td>
</tr>
<tr>
<td></td>
<td>Skin Irritation Category 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Sensitization Category 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carcinogenicity Category 1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specific Target Organ Toxicity – Single</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exposure Category 1</td>
<td></td>
</tr>
</tbody>
</table>

Hazard Phrases

- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage.
- H335: May cause respiratory irritation.
- H350: May cause cancer.
- H370: Causes damage to nervous system and eyes

Precautionary Phrases

- 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 and hot surfaces. No smoking.
- P260: Do not breathe fumes/mist/vapors/spray.
- P264: Wash thoroughly after handling.
- P270: Do not eat, drink, or smoke when using this product.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor/physician.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P307 + P311: IF EXPOSED: Call a POISON CENTER or doctor/physician.
- P333 + P313: IF skin irritation or rash occurs: Get medical advice/attention.
SECTION 2 NOTES:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>% WT</th>
<th>SARA 313 REPORTABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>&lt;4%</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>&lt;2%</td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&lt;10%</td>
<td></td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>&lt;2%</td>
<td></td>
</tr>
<tr>
<td>Monosodium Phosphate</td>
<td>7558-80-7</td>
<td>&lt;1%</td>
<td></td>
</tr>
<tr>
<td>Disodium Phosphate</td>
<td>7558-79-4</td>
<td>&lt;1%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>OSHA PEL-TWA</th>
<th>ACGIH TLV TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>.75 ppm, 0.5 action</td>
<td>0.3 ppm Cell</td>
<td>2 ppm</td>
</tr>
<tr>
<td>Methanol</td>
<td>200 ppm</td>
<td>200 ppm</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Ethanol</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>400 ppm</td>
<td>200 ppm</td>
<td>400 ppm</td>
</tr>
<tr>
<td>Monosodium Phosphate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Disodium Phosphate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

SKIN: Remove contaminated clothing immediately. Wash the affected areas with soap or mild detergent and large amounts of water for at least 15 minutes.

INGESTION: Antidote: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac.

INHALATION: Move individual to fresh air immediately. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Get medical attention.

NOTE TO PHYSICIAN: Symptoms will vary with alcohol level of blood. Mild alcohol intoxication occurs at blood levels between 0.05-0.15%. Approximately 25% of individuals show signs of intoxication at these levels. Above .015% the person is definitely under the influence of ethanol; 50-95% of individuals are clinically intoxicated at these levels. Above 0.5% the individual will be comatose and death can occur. The unabsorbed ethanol should be removed by gastric lavage after intubating the patient to prevent aspiration. Avoid the use of depressant drugs and administering excessive amounts of fluids.

SECTION 4 NOTES: Immediate medical treatment is required for eye contact and ingestion.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: 73% (37% formaldehyde) (% BY VOLUME) LOWER: 7% (37% formaldehyde)

FLASH POINT:
F: 101° F
C: 38.3° C

METHOD USED: closed cup

AUTOIGNITION TEMPERATURE: Avoid contact with ignition sources.
SAFETY DATA SHEET

ALCOHOLIC FORMALIN

NFPA HAZARD CLASSIFICATION
HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0

HMIS HAZARD CLASSIFICATION
HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0

EXTINGUISHING MEDIA: Small fire – use DRY chemical powder. Large fire – use alcohol foam, water spray or fog

SPECIAL FIRE FIGHTING PROCEDURES: None known

UNUSUAL FIRE AND EXPLOSION HAZARDS: Thermal decomposition produces toxic fumes. Corrosive to most metals when dissolved in water.

PRODUCTS OF COMBUSTION: Formic Acid

HAZARDOUS DECOMPOSITION PRODUCTS: Strong vapors and irritants, carbon monoxide, carbon dioxide

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:
Small spill and leak: Dilute with water and mop, or absorb with an inert dry material and place in appropriate waste disposal container. Large spill and leak: Keep away from heat and ignition sources. Stop leak if without risk. Absorb with DRY earth, sand, or other non-combustible material. Avoid skin and eye contact. Prevent entry into sewers, basements or confined areas; dike if needed. Ensure airborne concentrations of formaldehyde do not exceed published exposure limits. Additional protective equipment such as full-face respirator, full body suit and boots may be required. If airborne concentrations of formaldehyde exceed 7.5 ppm, only use SCBA or supplied air respirators.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Avoid contact with eyes and skin. Do not breathe vapor or mist. Avoid prolonged or repeated contact with skin. If potential for splashing exists, protect skin by using sleeve protectors, aprons and face-shield. Immediately remove contaminated clothing. Wash thoroughly after handling. Keep containers closed and out of reach of children. Ground all equipment containing material. Store in a well ventilated area, away from sources of ignition and direct sunlight. Store at 59F to 86F (15C – 30C) Keep away from heat, sparks and flame.

OTHER PRECAUTIONS: In the United States, refer to OSHA 1910.1048 for requirements for handling/use of formaldehyde solutions.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use exhaust ventilation or laboratory hood. Ensure that eyewash stations and quick drench showers are proximal to the workstation or tissue processor.
VENTILATION: Use exhaust ventilation or laboratory hood
RESPIRATORY PROTECTION: Approved/certified respirator if airborne concentrations exceed exposure limits
EYE PROTECTION: Goggles
SKIN PROTECTION: Latex or nitrile gloves

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Laboratory coat

WORK HYGIENIC PRACTICES: Wash thoroughly after handling
SAFETY DATA SHEET
ALCOHOLIC FORMALIN

EXPOSURE GUIDELINES:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>US OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>0.75 ppm TWA, 2 ppm STEL OSHA PEL 0.3 ppm Ceiling ACGIH TLV</td>
</tr>
<tr>
<td>Methyl Alcohol</td>
<td>200 ppm TWA OSHA PEL 200 ppm TWA, 250 ppm STEL skin ACGIH TLV</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>1000 ppm/1,900 mg/mm3 TWA US (OSHA) 1000 ppm STEL US (ACGIH)</td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>200 ppm TWA US (ACGIH) 400 ppm TWA US (OSHA) 400 ppm STEL US (ACGIH)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Biological Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>None established</td>
</tr>
<tr>
<td>Methyl Alcohol</td>
<td>Methanol in urine 15 mg/L, end of shift (ACGIH)</td>
</tr>
</tbody>
</table>

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless
ODOR: Pungent odor
PHYSICAL STATE: Aqueous Liquid
pH AS SUPPLIED: Neutral
BOILING POINT:
  F: Not Available
  C: Not Available
MELTING POINT:
  F: N/A
  C: N/A
FREEZING POINT:
  F: Not Available
  C: Not Available

VAPOR PRESSURE (mmHg): 2.7mmHg @
  F: Not Available
  C: Not Available
VAPOR DENSITY (AIR = 1): Not Available
SPECIFIC GRAVITY (H2O = 1): Not Available
EVAPORATION RATE: Not Available
SOLUBILITY IN WATER: Not Available
MOLECULAR WEIGHT: Mixture
VISCOSITY: Not established

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY
SAFETY DATA SHEET
EASY FIX - ALCOHOLIC FORMALIN
SDS DATE: 02/2015

STABILITY:  Product is stable under normal conditions of use.

CONDITIONS TO AVOID (STABILITY): N/A

INCOMPATIBILITY (MATERIAL TO AVOID): Reactive with oxidizing materials, acids and alkalis

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Strong vapors and irritants, carbon monoxide, carbon dioxide

HAZARDOUS POLYMERIZATION: No hazardous polymerization

CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:
Reproductive Toxicity: Animal embryotoxin
Teratogenic and Mutagenic Effects: N/A

EMERGENCY OVERVIEW: DANGER! CONTAINS FORMALDEHYDE – POTENTIAL CANCER HAZARD. REPEATED OR PROLONGED EXPOSURE INCREASES RISK. HIGHLY TOXIC BY INHALATION AND IF SWALLOWED, IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. MAY CAUSE SENSITIZATION BY INHALATION OR SKIN CONTACT. RISK OF SERIOUS DAMAGE TO EYES. CORROSIVE; MAY CAUSE BURNS. KEEP CONTAINER CLOSED, USE WITH ADEQUATE VENTILATION. TARGET ORGANS: SKIN, EYES, RESPIRATORY TRACT. FOR LABORATORY USE ONLY.

ROUTES OF ENTRY: Skin/eye contact, inhalation, and ingestion.

POTENTIAL HEALTH EFFECTS
EYES: Hazardous in case of eye contact (irritant). May cause burns. May cause chemical conjunctivitis or corneal damage.

SKIN: Hazardous in case of skin contact (irritant, corrosive, sensitizer). Skin contact may produce burns. May cause skin sensitization which becomes evident upon re-exposure. Skin inflammation is characterized by itching, scaling, reddening or occasionally blistering.

INGESTION: May be fatal if swallowed. May cause burns to mouth, throat and stomach.

INHALATION: Hazardous in case of inhalation (lung irritant and sensitizer). Inhalation of spray mist may produce severe irritation of respiratory tract characterized by coughing, choking or shortness of breath. May cause asthmatic attacks due to allergic sensitization.

ACUTE HEALTH HAZARDS: See above, potential health effects.

CHRONIC HEALTH HAZARDS: Effects may be delayed. Formaldehyde has been associated with nasopharyngeal cancers. Repeated exposure may cause skin discoloration and nail decay. Inhalation may worsen conditions such as emphysema or bronchitis. Repeated skin exposure may cause defatting of the skin.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
Dermatitis, emphysema, bronchitis and conjunctivitis.

CARCINOGENICITY

Formaldehyde
NIOSH: Classified proven
ACGIH: Classified A2(suspected for human)
IARC: Classified A2(Probable for human)
NTP: Classified 2(Reasonably anticipated)

Methanol
Not classified as a human carcinogen.

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:
TOXICITY:

PAGE 5 OF 7
MSDS-ALCOHOLICFORMALIN-REV11
SAFETY DATA SHEET
EASY FIX - ALCOHOLIC FORMALIN

Formaldehyde: LC50 Pimephales promelas (Fathead minnow) 24.1 mg/L/96 hr
Methanol: LC50 fathead minnows 29,400 mg/L/96 hr; EC50 daphnia magna >10,000 mg/L/24 hr

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Unused product: dispose as a regulated hazardous waste. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

RCRA HAZARD CLASS: U122

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION
PROPER SHIPPING NAME: NOT REGULATED FOR GROUND TRANSPORTATION
HAZARD CLASS: ID
NUMBER: PACKING
GROUP: LABEL
STATEMENT:
ENVIRONMENTAL HAZARDS: No

AIR TRANSPORTATION
PROPER SHIPPING NAME: Aviation Regulated Liquid, n.o.s. (<4% Formaldehyde)
HAZARD CLASS: 9
ID NUMBER: UN3334
PACKING GROUP: III
LABEL STATEMENTS:

OTHER AGENCIES:
Canadian TDG: Not regulated / Environmental Hazards: No
EU ADR/RID: Not regulated / Environmental Hazards: No
IATA/ICAO: Not regulated / Environmental Hazards: No

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS
TSCA (TOXIC SUBSTANCE CONTROL ACT): All of the components are listed on the TSCA inventory.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): The RQ for the product (based on the RQ for Formaldehyde (6% maximum)) of 100 lbs, is 1,666 lbs. Report spills required under federal, state, and local regulations.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): This product contains the following chemicals regulated under SARA Section 302: Formaldehyde <4%

311/312 HAZARD CATEGORIES: Acute Health, Chronic Health

313 REPORTABLE INGREDIENTS: Listed (Methanol, Formaldehyde)

CALIFORNIA PROPOSITION 65: This product contains the following chemicals which are known to the State of California to cause cancer, reproductive toxicity or birth defects (developmental toxicity): Formaldehyde <4% (cancer)

INTERNATIONAL REGULATIONS:
WHMIS CLASSIFICATION: Class D1, D-2-A

SECTION 15 NOTES:
SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: Prepared 2/2015, Rev. 1.

DISCLAIMER: This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Avantik Biogroup be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.