


SAFETY DATA SHEET

1. IDENTIFICATION

- | | |
|----------------------------|---|
| 1.1. Product Name | Stemgent® AP Staining Kit II Fix Solution |
| 1.2. Catalog Number | 09-0042 |
| 1.3. Uses and restrictions | For research use only. Not for use in diagnostic or therapeutic applications |
| 1.4. Manufacturer/Supplier | Stemgent, Inc.
4 Hartwell Place
Lexington, MA 02421 USA
(617) 245-0000 |
| 1.5. In Case of Emergency | <ul style="list-style-type: none"> • For medical emergencies, contact your local emergency center. • For transportation emergencies, contact your local transportation authorities. • For other non-medical or non-environmental emergencies please call (617) 245-0030, 8:00 am-4:00 pm EST, Monday – Friday. |

2. HAZARDS IDENTIFICATION

- | | |
|---------------------------------|--|
| 2.1. Classification | GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) <ul style="list-style-type: none"> • Flammable liquids (Category 4), H227 • Acute toxicity, Oral (Category 4), H302 • Skin irritation (Category 2), H315 • Serious eye damage (Category 1), H318 • Skin sensitization (Category 1), H317 • Carcinogenicity (Category 1A), H350 • Specific target organ toxicity – single exposure (Category 1), H370 |
| 2.2. Signal Word | Danger |
| 2.3. Symbol |  |
| 2.4. Hazard Statement(s) | <ul style="list-style-type: none"> • H227 Combustible liquid. • H302 Harmful if swallowed. • H315 Causes skin irritation. • H317 May cause an allergic skin reaction. • H318 Causes serious eye damage. • H341 Suspected of causing genetic defects. • H350 May cause cancer. • H370 Causes damage to organs. |
| 2.5. Precautionary Statement(s) | <ul style="list-style-type: none"> • P201 Obtain special instructions before use. • P202 Do not handle until all safety precautions have been read and understood. |

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- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 - P260 Do not breathe dust/fume/gas/mist/vapors/spray.
 - P264 Wash skin 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.
 - P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
 - P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 - 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 or doctor/ physician.
 - P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P362 Take off contaminated clothing and wash before reuse.
 - P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
 - 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.
- 2.6. Hazards not otherwise classified (HNOC) or not covered by GHS None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Name	3.2 Synonyms	3.3 Chemical Formula	3.4 Molecular Weight	3.5 CAS Number
Formaldehyde	Formalin	CH ₂ O	30.031 g/mol	50-00-0
Methanol	Methyl Alcohol	CH ₄ O	32.04 g/mol	67-56-1

HAZARDOUS COMPONENTS WITHIN MIXTURE

Component	CAS-No./EC-No.	Classification	Concentration
Formaldehyde	CAS-No: 50-00-0 EC-No: 200-001-8	Flam. Liq. 4: H227 Acute Tox. 3: H301 + H311 + H331 Skin Corr. 1B: H314 Eye Dam. 1: H314, H318 Skin Sens. 1: H317 Carc. 2: H351 Aquatic (A)3: H402	≥ 1- <5%



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Methanol	CAS-No: 67-56-1 EC-No: 200-659-6	Flam. Liq 2: H225 Acute Tox. 3: H301 + H311 + H331 STOT SE 1: H370	≥ 1- <5%
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4. FIRST AID MEASURES

4.1. First Aid Instructions

- General Advice Move out of exposure area. Consult a physician.
- Eyes Check for and remove contact lenses immediately and flush thoroughly with water for at least 15 minutes. Call a physician.
- Skin Immediately flush skin with copious amounts of water. Remove contaminated clothing and shoes and wash before use. Contact a physician.
- Ingestion If swallowed, wash mouth out with water provided person is conscious. Do not induce vomiting. Loosen tight clothing. Contact a physician.
- Inhalation If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, call a physician.
- Puncture Wounds Wash thoroughly with soap and water. Allow wound to bleed freely. Contact a physician.

4.2. Most Important Symptoms/effects, acute and immediate

Described in section 2.

4.3. Indications of immediate medical attention and special treatment needed

No data available.

5. FIRE FIGHTING MEASURES

5.1. Suitable extinguishing media.

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

5.2. Specific hazards arising from the chemical

Carbon oxides

5.3. Special protective equipment and precautions for fire-fighters

Wear self contained breathing apparatus and full turnout gear for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment (see section 8). Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition. Beware of vapors to form explosive concentrations. Vapors can accumulate in low areas.

6.2. Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.



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6.3. Methods and materials for containment and clean up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- Avoid inhalation, contact with eyes, skin, and clothing.
- Avoid inhalation of vapor or mist.
- Keep away from sources of ignition – No smoking.
- Take measures to prevent the build-up of electrostatic charge.
- For other precautions see section 2.5.

7.2 Conditions for safe storage, including any incompatibilities

Store at 4°C. Keep container tightly closed in a dry and well-ventilated place. Containers which are open must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Formaldehyde, CAS No. 50-00-0

- This standard applies to all occupational exposures to formaldehyde from formaldehyde, its solutions, and materials that release formaldehyde.
- Potential occupational carcinogen; OSHA specifically regulated carcinogen
- Upper respiratory tract irritation, eye irritation, sensitizer

Formaldehyde Exposure Limits

- TWA: 0.016ppm – USA NIOSH Recommended Exposure Limits
- Ceiling Limit: 0.3ppm – USA ACGIH Threshold Limit Values
0.1ppm – USA NIOSH Recommended Exposure Limits
- PEL: 0.75 ppm, 15 minute ceiling value – OSHA Specifically Regulated Chemicals/Carcinogens

Methanol, CAS No. 67-56-1

- Potential for dermal/cutaneous absorption
- Headache, Nausea, Dizziness, Eye Damage

Methanol Exposure Limits

- BEI: 15 mg/l (Urine biological specimen) – ACGIH Biological Exposure Limit
- STEL: 250ppm – USA ACGIH Threshold Limit Values
- ST: 250ppm; 260 mg/m³ – USA NIOSH Recommended Exposure Limits
- TWA: 200ppm – USA ACGIH Threshold Limit Values
200ppm; 260 mg/m³ – USA Occupational Exposure Limits OSHA – Table Z-1 Limits for air contaminants/USA NIOSH Exposure Recommended Limits

8.2. Appropriate engineering control

Safety shower and eye bath. Mechanical exhaust required.

8.3. Protection measures and Personal Protective Equipment

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling.



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- **Respiratory Protection** Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.
- **Eye Protection** Chemical safety goggles.
- **Skin Protection** Protective gloves and lab coat. Use nitrile rubber gloves with a minimum layer thickness 0.11 mm.

9. PHYSICAL/CHEMICAL PROPERTIES

- | | |
|--|---|
| 9.1. Appearance | Colorless liquid. |
| 9.2. Odor | No data available. |
| 9.3. Odor Threshold | No data available. |
| 9.4. pH | No data available. |
| 9.5. Melting point/freezing point | No data available. |
| 9.6. Initial boiling point and boiling range | 100°C (212 °F) at 1,013 hPa (760 mmHg) |
| 9.7. Flash point | 85°C (185°F) |
| 9.8. Evaporation rate | No data available. |
| 9.9. Flammability (solid, gas); | No data available. |
| 9.10. Upper/lower flammability or explosive limits | Upper explosion limit: 70% (V)
Lower explosion limit: 7% (V) |
| 9.11. Vapor pressure | 53 hPa (40 mmHg) at 39°C (102°F) |
| 9.12. Vapor density | No data available. |
| 9.13. Relative density | 1.080n g/cm ³ |
| 9.14. Solubility(ies) | Completely miscible in water. |
| 9.15. Partition coefficient: n-octanol/water | No data available. |
| 9.16. Auto-ignition temperature | No data available. |
| 9.17. Decomposition temperature | No data available. |
| 9.18. Viscosity | No data available. |
| 9.19. Explosive properties | No data available. |
| 9.20. Oxidizing properties | No data available. |

10. STABILITY/REACTIVITY

- | | |
|--|-------------------------|
| 10.1. Reactivity | No data available. |
| 10.2. Chemical Stability | This product is stable. |
| 10.3. Possibility of hazardous reactions | No data available. |



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10.4. Conditions to Avoid	Heat, flames and sparks.
10.5. Incompatible materials	Oxidizing agents, strong bases, acids, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline
10.6. Hazardous decomposition products	No data available.

11. TOXICOLOGICAL INFORMATION

11.1. Toxicological effects	No data available.
• Acute toxicity	No data available.
• Skin corrosion/irritation	No data available.
• Serious eye damage/eye irritation	No data available.
• Respiratory or skin sensitization	No data available.
• Germ cell mutagenicity	No data available.
• Carcinogenicity	<ul style="list-style-type: none"> • IARC: 1 – Group 1: Carcinogenic to humans (Formaldehyde) • NTP: Known to be human carcinogen (Formaldehyde) • OSHA: Specifically regulated carcinogen (Formaldehyde)
• Reproductive Toxicity	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.
11.2. Symptoms related to the physical, chemical and toxicological characteristics	No data available.
11.3. Effects of Short-Term Exposure	No data available.
11.4. Effects of Long-Term Exposure	No data available.
11.5. Numerical measures of toxicity	No data available.
11.6. Other Information	<p>Liver – irregularities – based on human evidence</p> <p>Stomach – irregularities – based on human evidence</p> <p>Liver – irregularities – based on human evidence (Formaldehyde)</p> <p>Stomach – irregularities – based on human evidence (Methanol)</p>

12. ECOLOGICAL INFORMATION

12.1. Toxicity	No data available.
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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	No data available.
12.6. Other adverse effects	No data available.

13. DISPOSAL CONSIDERATIONS

13.1. Disposal Method	Waste must be disposed of in accordance with federal, state, and local environmental control regulations.
13.2. Personal safety	Refer to section 8.

14. TRANSPORT INFORMATION

This product is considered non hazardous for transport.

15. REGULATORY INFORMATION

U.S. Federal Regulations

- SARA 313 components
The following components are subject to reporting levels established by SARA Title III, Section 313:
Methanol, CAS-No. 67-56-1, Revision Date: 2007-07-01
Formaldehyde, CAS-No. 50-00-0, Revision Date: 2007-07-01
- SARA 302 components
The following components are subject to reporting levels established by SARA Title III, Section 302:
Formaldehyde, CAS-No. 50-00-0, Revision Date: 2007-07-01
- SARA 311/312 Hazards
Fire hazard, Acute health hazard, Chronic health hazard
- Clean Air Act, Section 112
Hazardous Air Pollutants (HAPs) (see CFR 61)
Does not contain any components subject to reporting.

U.S. State Regulations

- California Proposition 65
Warning! This product contains a chemical known to the State of California to cause cancer.
Fomaldehyde, CAS No. 50-00-0
Warning! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
Methanol, CAS No. 67-56-1
- Massachusetts Right To Know Components
Formaldehyde, CAS-No. 50-00-0
Methanol, CAS-No. 67-56-1
- Pennsylvania Right To Know Components
Formaldehyde, CAS-No. 50-00-0
Methanol, CAS-No. 67-56-1
Disodium hydrogenorthophosphate, CAS-No. 7558-79-4



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- New Jersey Right To Know Components

WHMIS Hazard Class

Formaldehyde, CAS-No. 50-00-0
Methanol, CAS-No. 67-56-1
Disodium hydronorthophosphate, CAS-No. 7558-79-4
D-1A, D-2A, D-2B, D-E, B-2A

16. OTHER INFORMATION

Notice

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Stemgent, Inc. shall not be held liable for any damage resulting from handling or from contact with the product. See Stemgent, Inc. website for terms and conditions of sale.

Preparation Date

March 18, 2016

Version No.

1.2

Prepared by

Quality Control

END OF SAFETY DATA SHEET



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