SAFETY DATA SHEET:

Stemgent AP Staining Kit II Solution B

1. IDENTIFICATION

1.1. Product Name	Stemgent® Alkaline Phosphatase Staining Kit II Solution B
1.2. Catalog Number	09-0065
1.3. Uses and restrictions	For research use only. Not for use in therapeutic or diagnostic applications
1.4. Manufacturer/Supplier	REPROCELL USA, Inc. 9000 Virginia Manor Road, Suite 207 Beltsville, MD 20705 USA
1.5. In Case of Emergency	• For medical emergencies, contact your local emergency center. • For transportation emergencies, contact your local transportation authorities. • For other non-medical or environmental emergencies please call (617) 245-0030, 8:00 am-4:00 pm EST, Monday – Friday.

2. HAZARDS IDENTIFICATION

2.1. GHS Classification according to Annex II	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) • H315: Skin irritant • H314: Eye Irritant 2A
2.2. Signal Word	Warning
2.3. Symbol	
2.4. Hazard Statement(s)	• H315: Causes skin irritation • H319 Causes severe eye irritation
2.5. Precautionary Statement(s)	• P264: Wash skin thoroughly after handling. • P270: Do not eat, drink, or smoke when using this product. • P280: Wear protective gloves, protective clothing • P302+P352: IF ON SKIN: Wash with plenty of soap and water. • P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing • P332+P313: If skin irritation occurs: Get medical advice • P337+P313: If eye irritation persists: Get medical advice • P362: Remove contaminated clothing • P301+P330+P331: IF SWALLOWED, Rinse mouth. Do NOT induce vomiting. • P310: Immediately call a poison center or physician • P363: Wash contaminated clothing before reuse. • 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 OR INGREDIENTS

3.1 Chemical Name	3.2 Synonyms	3.3 Chemical Formula	3.4 Molecular Weight	3.5 CAS Number
2,2'-oxydiethanol, 2-hydroxetylether	Diethylene glycol	$C_4H_{10}O_3$	106.12 g/mol	111-46-6
Hydrogen chloride	Hydrochloric acid	HCl	36.43 g/mol	7647-01-0

HAZARDOUS COMPONENTS IN MIXTURE

Component	CAS-N-/ EC No	Classification	Concentration
Diethylene glycol	111-46-6/203-872-2	Acute Tox 4: H302 STOT RE 2: H373	9-10%
Hydrochloric acid	7647-01-0/231-595-7	Met Corr 1: H290 Skin Corr 1B: H314 Eye Damage 1: H314 STOT SE 3: H335	<1%

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 reuse. 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 Indication 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 product: Carbon oxides, hydrogen chloride gas.

5.3 Special protective equipment and precautions for firefighters: 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 direct contact with skin or eyes. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation..

6.2 Environmental precautions	Do not let product enter drains. Avoid environmental discharge.
6.6 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 prolonged or repeated exposure
- Keep in well-ventilated area
- For other precautions see section 2.5.

7.2. Conditions for safe storage, including any incompatibilities: Store at 4 °C. Keep containers 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

Diethylene glycol, CAS No. 111-46-4

Diethylene glycol Exposure Limits

- TWA: 10 mg/m^3 – USA WEEL.

Hydrochloric acid, CAS No. 7647-01-0

Hydrochloric acid Exposure Limits

- Ceiling limit: 2 ppm – USA ACGIH TLV
  5 ppm, 7 mg/m3 - USA NIOSH REL
  5 ppm, 7 mg/m3 – USA OSHA Table Z-1 limits

8.2 Appropriate engineering controls: Safety shower and eye bath. Mechanical exhaust required.

8.3 Protection measures and personal protective equipment (PPE): Handle in accordance with good industrial hygiene and safety practices. Wash thorough after handling.

- **Respiratory protection**: Respiratory protecting not required. 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 goggle
- **Skin protection**: Protective gloves and lab coat. Use nitrile gloves with minimum thickness of 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	No data available.
9.7 Flash point	No data available.

9.8 Evaporation rate	No data available.
9.9 Flamability (solid, gas)	No data available.
9.10 Upper/lower flammability or explosive limits	No data available.
9.11 Vapor pressure	No data available.
9.12 Vapor density	No data available.
9.13 Relative density	No data available.
9.14 Solubility	No data available.
9.15 Partition coefficient	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	Stable
10.3 Possiblity of hazardous reactions	No data available.
10.4 Conditions to avoid	No data available.
10.5 Incompatible materials	Zinc, bases, alkali metals strong oxidizing agente, metals, amines, strong acids, permanganates, fluorine, hexalithium disilicide
10.6 Hazardous decomposition products	No data available.

11. TOXICOLOGICAL INFORMATION

11.1 Toxicology effects

- **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**:
  - IARC: 3-Group 3: Not classifiable as to carcinogenicity (hydrochloric acid)
  - ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
  - NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
  - OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
- **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 or toxicological characteristics	Prolonged or repeated exposure can cause: nausea, dizziness, kidney injury, confusion, weakness, unconsciousness, convulsions, pulmonary edema. Effects may be delayed.
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:	Liver – irregularities – based on human evidence

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	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 non-hazardous for transport

15. REGULATORY INFORMATION

U.S. Federal Regulations

• SARA 313 components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels.
• SARA 302 components	Does not contain any components subject to reporting.
• SARA 311/312 Hazards	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	Does not contain any components subject to reporting.
• Massachusetts Right To Know Components	Hydrochloric acid, CAS No. 7647-01-0.
• Pennsylvania Right To Know Components	Hydrochloric acid, CAS No. 7647-01-0 Diethylene glycol, CAS No. 111-46-6
• New Jersey Right To Know Components	Hydrochloric acid, CAS No. 7647-01-0 Diethylene glycol, CAS No. 111-46-6
WHMIS Hazard Class	Not controlled under WHMIS (Canada)
Regulation (EC) No 1907/2006)	



Directive 67/548/EC & Directive 1999/45/EC	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.

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. REPROCELL, Inc. shall not be held liable for any damage resulting from handling or from contact with the product. See REPROCELL, Inc. website for terms and conditions of sale.
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END OF SAFETY DATA SHEET