MATERIAL SAFETY DATA SHEET

Part No. 827-05607, 827-05214, 827-05215,

24 Hour Phone (CHEMTREC) (800)424-9300
(CHEMTREC is for chemical emergencies)
Information Phone (215)781-9255

1. PRODUCT IDENTIFICATION

KB Plus 3.74% Gel Matrix-827-05214
KB Plus 5.50% Gel Matrix-827-05215
KB Plus 6.50% Gel Matrix-827-05607

2. COMPOSITIONS AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>W/V%</th>
<th>EXPOSURE LIMITS</th>
<th>AIR-OSHA</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>PEL</td>
<td>STEL</td>
<td>IDLH</td>
</tr>
<tr>
<td>Acrylamide</td>
<td>79-06-1</td>
<td>&lt;20</td>
<td>0.3</td>
<td>NE</td>
<td>60</td>
</tr>
<tr>
<td>Urea</td>
<td>57-13-6</td>
<td>&lt;40</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
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<tr>
<td>Tris-HCl</td>
<td>1185-53-1</td>
<td>&lt;3</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
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<tr>
<td>Boric Acid</td>
<td>10043-35-3</td>
<td>&lt;1</td>
<td>NE</td>
<td>NE</td>
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<tr>
<td>N,N-Methylenebis</td>
<td>110-26-9</td>
<td>&lt;1</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>acrylamide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDTA</td>
<td>60-00-4</td>
<td>&lt;1</td>
<td>NE</td>
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<td>Water</td>
<td>7732-18-5</td>
<td>&lt;50</td>
<td>NE</td>
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</tbody>
</table>
3. HAZARD IDENTIFICATION

Hazard Description: T Toxic

Information pertaining to particular dangers for man and environment

Risk Phrases
R 20/21 Harmful by inhalation and in contact with skin.
R 25 Toxic if swallowed.
R 36/38 Irritating to eyes and skin.
R 43 May cause sensitisation by skin contact
R 45 May cause cancer.
R 46 May cause heritable genetic damage.
R 48/23/24/25 Toxic: Danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

Classification system: The classification was made according to the latest editions of the EU lists, and expanded upon from company and literature data.

Safety Phrases
S 45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
S 53 Avoid exposure-Obtain special instructions before use.

NFPA ratings (scale 0-4)
Health = 2 Fire = 0 Reactivity = 0

4. FIRST AID MEASURES

Skin Exposure: Basic hygiene should prevent any problems. If contact with this product leads to reddening, inflammation or irritation, flush the exposed area with running water. Remove any contaminated clothing, taking care not to contaminate eyes.

Eye Exposure: If liquids or vapors of this product's components enter the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes.

Inhalation: If vapors, mists or sprays of the products components are inhaled, causing irritation, remove victims to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

Ingestion: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Victim should drink milk, egg whites, or large quantities of water. Never induce
vomiting or give diluents (milk or water) to someone who is unconscious, having convulsion, or unable to swallow.

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to physician or health professional with victim.

5. FIRE-FIGHTING MEASURES

Unusual Fire And Explosion Hazards: When involved in a fire, this material may decompose and produce irritating fumes and toxic gases (including carbon monoxide, carbon dioxide and oxides of nitrogen).
Flash Point, °C: N/A
Auto ignition Temperature, °C: N/A
Flammable Limits (In Air By Volume, %): N/A

6. ACCIDENTAL RELEASE MEASURES

Spill And Leak Response: For small releases, treat the product as water, but take basic hygiene precautions. Lightweight gloves, a lab coat, and eye protection should be worn. Absorb spilled material with paper towels. Wash contaminated area with soap and water, absorb with paper towels and rinse with water. Trained personnel using pre-planned procedures would respond to large releases that are not immediately controlled. Proper protection equipment should be used. In case of a spill, clear the affected area, protect people and respond with trained personnel.

In the event of a non- incidental, minimum release, Personal Protective Equipment should be: Level D: lab gloves, chemical resistant apron, boots and splashes goggles. Respiratory protection should not be necessary. Absorb spilled liquid with poly pads or other suitable absorbent materials. Decontaminate the area thoroughly. Place all spill residues in a suitable container and seal. Dispose of in accordance with Federal, State and local hazardous waste disposal regulation.

7. HANDLING and STORAGE

Work Practices And Hygiene Practices: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash hands after handling this product. Avoid splashing or spraying this product. Do not eat or drink while handling this product.
Storage And Handling Practices: All employees who handle this material should be trained to handle it safely. Avoid breathing vapors or mists generated by this product. Ensure that containers of this product are properly labeled. Open containers slowly on a stable surface. Store vials as directed in the product insert. Keep vials tightly closed when not in use. Store away from incompatible materials. Inspect vials containing this product for leaks or damage. Prior to use, read instruction provided with product.
Protective Practices During Maintenance Of Contaminated Equipment: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely, as applicable. Always use this product in areas where adequate
ventilation is provided. Decontaminate equipment using soapy water before maintenance begins. Collect all rinsates and dispose of according to applicable Federal, State or Local procedures.

8. EXPOSURE CONTROLS-PERSONAL PROTECTION

Ventilation And Engineering Controls: Use with adequate ventilation. Use a mechanical fan or vent area to outside, if necessary. Eye-wash stations should be available near location where his product is used.
Respiratory Protection: Respiratory protection is generally not needed when using this product. Maintain airborne contaminant concentration below limits listed in Section 2. (Composition and Information on Ingredients). If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134 or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown.
Eye Protection: Splash goggles or safety glasses.
Hand Protection: Wear gloves for routine industrial use.
Body Protection: Use body protection appropriate for task, such as a lab coat.

9. PHYSICAL and CHEMICAL PROPERTIES

Relative Vapor Density (Air =1): N/A
Specific Gravity (Water=1): N/A
Solubility In Water: Soluble
Appearance And Color:
How To Detect This Substance: There are no unusual warning properties associate with these solutions.

Evaporation Rate: Similar to water
Freezing/melting Point: N/A
Boiling Point: N/A
Ph:

10. STABILITY and REACTIVITY

Stability: Stable
Decomposition Products: Carbon dioxide, carbon monoxide, ammonia, hydrogen chloride, oxides of nitrogen.
Hazardous Polymerization: Will not occur
Conditions To Avoid: Any conditions which are incompatible with water, incompatible chemicals.

11. TOXICOLOGICAL INFORMATION

Toxicity Data: The specific toxicology data available for components greater that 1% in concentration are as follows:

ACRYLAMIDE:
LD₅₀ (skin, rabbit) = 4680 µl/kg
LD₅₀ (oral, rat) = 124 mg/kg

TRIS(HYDROXYMETHYL)AMINOMETHANE HYDROCHLORIDE (TRIS-HCI):
Currently, there are no toxicological data available for this compound.

Suspected Cancer Agent: The Chemical ACRYLAMIDE in this products's solution is found on the following lists: IARC.
**Irritancy Of Product:** Acrylamide: Prolonged skin over-exposure to this component may cause dermatitis (dry, red skin). Eye over-exposure may cause temporary cornea damage. ALL OTHER SOLUTIONS: Although not tested, the other components of this product are not expected to cause irritancy to the skin. Mild eye irritation may occur if the other components of this product enter the eye.

**Sensitization To The Product:** The chemical ACRYLAMIDE in this product's solutions is known to be sensitizer with prolonged or repeated use.

**Reproductive Toxicity Information:** Listed below is information concerning the effects of this product and its components on the human reproductive system.

**Mutagenicity:** This product is not reported to produce mutagenic effects in humans.

**Embryo toxicity:** This product is not reported to cause human teratogenic effects. Refer to the following paragraph for additional information.

**Teratogenicity:** This product is not reported to cause human teratogenic effects. Clinical studies on test animals exposed to relatively high doses of Acrylamide indicate teratogenic effects.

**Reproductive Toxicity:** This product is not reported at this time to cause adverse reproductive effects in humans. Clinical studies on test animals exposed to relatively high doses of acrylamide indicate teratogenic effects.

**Medical Condition Aggravated By Exposure:** Skin disorders may be aggravated by over-exposure to the Acrylamide.

**Recommendation To Physicians:** This product is not expected to cause clinical symptoms. If symptoms occur, treat the symptoms and eliminate over-exposure.

**Biological Exposure Indices (BEI's):** Currently, there are no Biological Exposure Indices (BEI's) applicable to the components of this product.

12. ECOLOGICAL INFORMATION

**Environmental Stability:** When Acrylamide is released into the soil, this material is expected to leach into groundwater, it may biodegrade to a moderate extent. Acrylamide is not expected to bioaccumulate.

**Effect Of Material On Plants Or Animals:** Because of the small volume of the solutions in this product, no unusual effects on plants or animals are expected if this product is released into the environment. See Section 11 (Toxicological Information) for further information regarding the effects of chemicals in this product's solutions on test animals.

13. DISPOSAL CONSIDERATIONS

**Preparing Wastes For Disposal:** Waste Disposal must be in accordance with appropriate Federal, State and local regulation. This product, if altered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

**EPA Waste Number:** U007

14. TRANSPORTATION INFORMATION

This material is hazardous as defined by 49 CFR 172.101 by the U.S. Department of Transportation.
Proper Shipping Name: Acrylamide Solution
Hazard Class Number And Description: 6.1 Poison/Toxic
UN Identification Number: UN# 3426
Packing Group: III
DOT Labels Required: POISON
ERG#: 154

15. REGULATORY INFORMATION

SARA Reporting Requirements: The following chemical is subject to Sections 302, 304, and 313 reporting requirements under the Superfund Amendment and Reauthorization Act.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>SARA 302</th>
<th>SARA 304</th>
<th>SARA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylamide</td>
<td>YES</td>
<td>YES</td>
<td>N</td>
</tr>
<tr>
<td>Ethylenediaminetetraacetic acide</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

SARA Threshold Planning Quantity: N/A
TSCA Inventory Status: The components of this product are listed on the TSCA inventory.
CERCLA Reportable Quantity (RQ): Acrylamide= 5000 lbs. EDTA = 5000 lbs.
Other Federal Regulations: N/A

16. OTHER INFORMATION

Created: 03/11/02
Revised: 09/28/12

Prepared By LI-COR, Inc.
Safety and Compliance Department
4647 Superior Street, Lincoln, NE 68504
(402) 467-0700

Postscript