Material Safety Data Sheet
Revision: 09/19/2005

Hazard information is provided for compliance with both the UK Chemicals (Hazard Information and Packaging) (CHIP) Regulations and the US Hazard Communication Standard (HCS).

**IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**

**PRODUCT NAME:**
- PrepEase™ Mini Plasmid Kit
- PrepEase™ Midi Plasmid Kit
- PrepEase™ Maxi Plasmid Kit
- PrepEase™ Mega Plasmid Kit
- PrepEase™ Giga Plasmid Kit

**PRODUCT CODE:**
- 78700 / 78701
- 78705 / 78706
- 78710 / 78711
- 78715
- 78720

**EEC NUMBER:** None

**SUPPLIER:**
USB Corporation, 26111 Miles Road, Cleveland, Ohio 44128 Phone: (216) 765-5000

Please visit our website at www.usbweb.com for contact information on USB product distributors within your area.

**COMPOSITION/HAZARDOUS COMPONENTS**

<table>
<thead>
<tr>
<th>HAZARD</th>
<th>CAS NO.</th>
<th>% WT</th>
<th>TLV</th>
<th>CHIP R &amp; S Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Dodecyl Sulfate (SDS) (S2 Buffer)</td>
<td>151-21-3</td>
<td>1.0%</td>
<td>—</td>
<td>R:22 Harmful if swallowed. R:36/37/38 Irritating to eyes, respiratory system and skin.</td>
</tr>
<tr>
<td>Sodium Hydroxide (S2 Buffer)</td>
<td>1310-73-2</td>
<td>&lt;1.0%</td>
<td>See “Regulatory Information” Section</td>
<td>R:36/38 Irritating to eyes and skin. S:26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</td>
</tr>
<tr>
<td>Potassium Acetate (S3 Buffer)</td>
<td>127-08-2</td>
<td>~27.5%</td>
<td>—</td>
<td>R:36/37/38 Irritating to eyes, respiratory system and skin.</td>
</tr>
<tr>
<td>Tris (N2, N3 &amp; N5 Buffer)</td>
<td>77-86-1</td>
<td>~1.2%</td>
<td>—</td>
<td>R:36/37/38 Irritating to eyes, respiratory system and skin.</td>
</tr>
<tr>
<td>Ethanol (N2, N3 &amp; N5 Buffer)</td>
<td>64-17-5</td>
<td>15.0%</td>
<td>See “Regulatory Information” Section</td>
<td>R:10 Flammable. S:16 Keep away from sources of ignition - no smoking. S:7 Keep container tightly closed.</td>
</tr>
<tr>
<td>Potassium Chloride (N2, N3 &amp; N5 Buffer)</td>
<td>7447-40-7</td>
<td>6.7-8.6%</td>
<td>—</td>
<td>R:36/37/38 Irritating to eyes, respiratory system and skin. For all components: S:23 Do not breathe vapour. S:24/25 Avoid contact with skin and eyes. S:36/37 Wear suitable protective clothing and gloves.</td>
</tr>
</tbody>
</table>

**HAZARDS IDENTIFICATION**

- **CHIP**
  - Flammable (Ethanol); Harmful (SDS); Irritant (Tris, Sodium Hydroxide, Potassium Acetate and Potassium Chloride)
- **HCS**
  - Flammable Liquid (Ethanol); Irritant (SDS, Tris, Sodium Hydroxide, Potassium Acetate and Potassium Chloride)

**FIRST-AID MEASURES**

- **EYES:** Flush with water for 15 minutes. Seek medical advice if irritation persists.
- **SKIN:** Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.
- **INHALATION:** Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.
- **INGESTION:** Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

**FIRE-FIGHTING INFORMATION**

- Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. For small fires only: use carbon dioxide, dry powder or foam. Flammable liquid. Vapor may travel considerable distance to source of ignition and flash back. Emits toxic fumes under fire conditions. Explosion Limits (Pure Ethanol): Lower = 3.3% Upper = 19%.
  - Flash Point = 36°C (N2, N3, N5 Buffer). Autoignition Temperature = 363°C (Pure Ethanol).
ACCIDENTAL RELEASE MEASURES
Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Eliminate all sources of ignition. Cover with dry-lime, sand or soda ash. Using non-sparking tools, collect in a manner that does not create dust and place in a suitable waste container. Avoid contact of material with skin or eyes. Use adequate ventilation.

HANDLING AND STORAGE
Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Avoid contact of material with skin or eyes. Use adequate ventilation. Avoid heat, sparks and open flame. Keep away from all sources of ignition. Ground all equipment containing material. Store ambient.

PERSONAL PROTECTION
Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash.

PHYSICAL AND CHEMICAL PROPERTIES
Appearance: Kit containing vials of solution
Boiling Point: No data available
Evaporation Rate: No data available

STABILITY AND REACTIVITY
Product is stable. Avoid high temperatures and sources of ignition. Hazardous decomposition products may include oxides of carbon, nitrogen and sulfur. Incompatible with alkali metals, ammonia, peroxides, metals, acids, tin, aluminum, zinc, strong oxidizing agents and strong bases. Hazardous polymerization will not occur.

TOXICOLOGICAL INFORMATION
EFFECTS OF OVEREXPOSURE:
FOR ETHANOL: TARGET ORGAN(S): Kidneys, Heart, CNS and Liver.
EYES: Contact may cause irritation. May cause chemical conjunctivitis and corneal damage.
SKIN: May be harmful if absorbed through the skin. Contact may cause irritation. Ethanol may have a drying or irritating effect on the skin after repeated or prolonged exposure.
INHALATION: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma.
INGESTION: May be harmful if ingested. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause CNS depression, characterized by excitement, followed by headache, dizziness, drowsiness and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death.
FOR SDS, TRIS, SODIUM HYDROXIDE, POTASSIUM ACETATE AND POTASSIUM CHLORIDE:
EYES: Contact may cause severe irritation.
SKIN: Contact may cause irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.
INHALATION: May cause irritation to mucous membranes and upper respiratory tract. May be harmful if inhaled. May cause allergic respiratory reaction.
INGESTION: Harmful if swallowed. Chronic ingestion or excessive dosage may cause irritation of the gastrointestinal tract with nausea, vomiting and diarrhea.
ADDITIONAL INFORMATION:
Only select RTECS information is provided here. Please see actual RTECS entries for complete information.
Reproductive effects, irritation, mutation and toxicity data for SDS listed in RTECS under WT1050000.
Irritation data: Skin Rabbit 50 mg/24H = Severe (1971). Eye Rabbit 100 mg/24H = Moderate (1972).
Toxicity data: Oral Rat LD50 = 1288 mg/kg (1967). Inhalation Rat LC50 = >3900 mg/m3/1H (1971).
Toxicity data for Potassium Acetate listed in RTECS under AJ3325000.
Toxicity data: Oral Rat LD50 = 3250 mg/kg (1969).
Toxicity data for Tris listed in RTECS under TY2900000.
Toxicity data: Oral Rat LD50 = 5900 mg/kg (1971).
Irritation, mutation and toxicity data for Sodium Hydroxide listed in RTECS under WB4900000.
Irritation data: Skin Rabbit 500 mg/24H = Severe (1972). Eye Rabbit 1 mg/24H = Severe (1964).
Toxicity data: Intraperitoneal Mouse LD50 = 40 mg/kg (1963).
Irritation, mutation and toxicity data for Potassium Chloride listed in RTECS under TS8050000.
Irritation data: Eye Rabbit 500 mg/24H = Mild (1972). Toxicity data: Oral Rat LD50 = 2600 mg/kg (1972).
Reproductive, irritation, mutagen, tumorigenic and toxicity data for Ethanol listed in RTECS under KG6300000.
Irritation data: Skin Rabbit 20 mg/24H = Moderate (1986). Eye Rabbit 500 mg/24H = Mild (1986).
Tumorigenic data: equivocal tumorigenic agent by RTECS criteria (1981).

ECOLOGICAL INFORMATION
No information available.

DISPOSAL CONSIDERATIONS
Dispose of material in accordance with applicable local, state, and federal regulations.

TRANSPORTATION INFORMATION
US DOT / IATA: No applicable information.

REGULATORY INFORMATION
RCRA - No applicable information.
SARA 302 - No applicable information.
SARA 313 - No applicable information.
EPA TSCA Section 8(b) - All listed components: Chemical Inventory. Exposure Limits - For Ethanol: ACGIH TLV-TWA: 1000 ppm. OSHA PEL (Gen Indu): 8H TWA 1000 ppm.
For Sodium Hydroxide: ACGIH TLV-CL 2 mg/m3. OSHA PEL (Gen Indu): 8H TWA 2 mg/m3.
California Proposition 65 - No applicable information.

This data sheet is based upon information believed to be reliable. The Company makes no statement or warranty as to the accuracy or completeness of the information contained herein which is offered for your consideration, investigation and verification. Any use of the information contained in this data sheet must be determined by the user to be in accordance with appropriate applicable regulations.