Safety Data Sheet
Revision: 03/01/2012

Isopropanol
SDS and Guanidine Hydrochloride
Guanidine Hydrochloride, Sodium Hydroxide and Isopropanol

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® MiniSpin Plasmid Kit
PRODUCT CODE: 78735 / 78736 / 78737
EEC NUMBER: None

SUPPLIER:
Affymetrix|USB, 26111 Miles Road, Cleveland, Ohio 44128 Phone: (216) 765-5000
Please visit our website at usb.affymetrix.com for contact information on USB product distributors within your area.

Emergency Contact:
Chemtrec (800) 424-9300
Outside USA & Canada 703 527 3887

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>Guanidine Hydrochloride (A3 and AW Buffer)</td>
<td>50-01-1</td>
<td>&lt;45%</td>
<td>C</td>
<td>R:22 Harmful if swallowed. R:36/37/38 Irritating to eyes, respiratory system and skin. S:26 Avoid contact with eyes.</td>
</tr>
<tr>
<td>Sodium Dodecyl Sulfate (SDS) (A2 Buffer)</td>
<td>151-21-3</td>
<td>~1.0%</td>
<td>C</td>
<td>R:22 Harmful if swallowed. R:36/37/38 Irritating to eyes, respiratory system and skin. S:26 Avoid contact with eyes.</td>
</tr>
<tr>
<td>Sodium Hydroxide (A2 Buffer)</td>
<td>1310-73-2</td>
<td>&lt;1%</td>
<td></td>
<td>See Regulatory Information Section</td>
</tr>
<tr>
<td>Isopropanol (AW Buffer)</td>
<td>67-63-0</td>
<td>~30%</td>
<td></td>
<td>See Regulatory Information Section</td>
</tr>
</tbody>
</table>

HAZARDS IDENTIFICATION

CHIP
Flammable (Isopropanol); Harmful (Guanidine HCl, SDS); Irritant (Isopropanol, Guanidine HCl, Sodium Hydroxide)

HCS
Flammable Liquid (Isopropanol); Toxic (Guanidine HCl); Irritant (Isopropanol, SDS, Sodium Hydroxide)

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 liquids. Vapors may travel considerable distance to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Formation of explosive air/vapor mixtures are possible. Emits toxic fumes under fire conditions. Flash Point = ~24°C.

ACCIDENTAL RELEASE MEASURES

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

SDS information may be continued on back of page.
PERSONAL PROTECTION: Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, 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.


TOXICOLOGICAL INFORMATION: EFFECTS OF OVEREXPOSURE:
FOR GUANIDINE HYDROCHLORIDE: TARGET ORGAN(S): Bone Marrow and Nerves.
EYES: Vapors may cause irritation or burning upon contact.
SKIN: May be harmful if absorbed through the skin. Causes severe irritation to skin and hypersensitive individuals may experience an allergic reaction.
INHALATION: May be harmful if inhaled. May cause irritation to mucous membranes and upper respiratory tract.
INGESTION: Harmful if swallowed. Chronic ingestion or excessive dosage may cause gastrointestinal tract irritation with nausea, vomiting and diarrhea. May cause central nervous system disorders.

FOR ISOPROPANOL: TARGET ORGAN(S): Central Nervous System, Respiratory System, Kidneys, Eyes and Skin.
EYES: Causes irritation characterized by burning, redness, tearing, inflammation and possible corneal injury.
SKIN: May be harmful if absorbed through the skin. Contact causes irritation. Prolonged or repeated contact causes defatting of skin with irritation, dryness and cracking.
INHALATION: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Breathing of vapors may cause drowsiness and dizziness. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma.
INGESTION: May be harmful if swallowed. Aspiration hazard. Aspiration of material into lungs may cause chemical pneumonitis, which may be fatal. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression.

FOR SDS AND SODIUM HYDROXIDE:
EYES: Contact may cause severe irritation.
SKIN: Contact may cause irritation. May cause skin sensitization.
INHALATION: May be harmful if inhaled. May cause allergic respiratory reaction. May cause irritation to mucous membranes and upper respiratory tract.
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.
Irritation, mutation and toxicity data listed for Sodium Hydroxide in RTECS under WB4900000.
Toxicity data: Oral Rat LD50 = 475 mg/kg.
Irritation, reproductive effects, mutation and toxicity data listed for Isopropanol in RTECS under NT8050000.
Irritation data: Skin Rabbit 500 mg = Mild. Eye Rabbit 100 mg/24H= Moderate (1986).
Toxicity data: Oral Rat LD50 5045 mg/kg (1978); Inhalation Rat 16000 ppm/8H (1974). Skin Rabbit 12800 mg/kg (1974).
Carcinogenicity data: ACGIH TLV-Not classifiable as a human carcinogen (2005).
Group 3 - Agent is not classifiable as to its carcinogenicity to humans (1999).
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).
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: Intrapertoneal Mouse LD50 = 40 mg/kg (1963).

ECOLOGICAL INFORMATION: No information available.

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


REGULATORY INFORMATION: RCRA - No applicable information.
SARA 302 - This material does not have a RQ or TQ.
SARA 313 - This material contains isopropanol (CAS# 67-63-0, 30%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
EPA TSCA Section 8(b) - All listed components: Chemical Inventory.
Exposure Limits - For Isopropanol: ACGIH TLV-TWA 200 ppm; STEL 400 ppm (2005).
OSHA PEL (Gen Indu): 8H TWA 400 ppm (980 mg/cm3) (1994).
NIOSH REL to Isopropyl alcohol-air:10H TWA 400 ppm; STEL 500 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.