Pascal Company, Inc.

Material Safety Data Sheet

Product Identification:	**BANICIDE ®ADVANCED**
Manufacturer: Pascal Company, Inc. P.O. Box 1478 Bellevue, Washington 98009-1478 Phone Number (for information): 1-425-827-4694 Emergency Phone Number: 1-425-827-4694 Fax Number: 1-425-827-6893 Product Name: BANICIDE ADVANCED (3.5% aqueous glutaraldehyde solutions.) Product Code: 15-100 (in USA), 15-085 (in CANADA)	Product Type/General Information: Chemical Sterilant/Disinfectant Chemical Name: (active ingredient) 3.5% glutaraldehyde Hazardous Chemicals: Glutaraldehyde Routes of entry: Inhalation x Skin/Eye x Ingestion x PRECAUTIONARY LABELING (HMIS Rating System) Health – 3 Flammability – 0 Reactivity – 0 Physical Hazard – None CHEMTREC has been provided for use in medical emergencies involving this product. Call 1-800-424-9300 Date Prepared: October 20, 2003

SECTION 1 – MATERIAL IDENTIFICATION AND INFORMATION

BANICIDE ADVANCED contains the following hazardous ingredients at concentrations greater than 1.0%.	%	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Glutaraldehyde (active ingredient) **CAS#** 111-30-8	3.5%	0.2ppm[1]	0.5ppm	
BANICIDE ADVANCED contains the following hazardous ingredients listed as carcinogens or potential by the National Toxicology Program (NTP), International Agency on Cancer (IARC) or OSHA, and present at a concentration greater than 0.1% None **CAS#** N/A	N/A			

[1] The OSHA Permissible Exposure Level (PEL) for glutaraldehyde was invalidated in 1992 by court order. However, the PEL may remain valid in some OSHA approved state plans, and also can be enforced by federal OSHA under its General Duty Clause.

SECTION 2 – PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 100°C/212°F Vapor Pressure: 16.9 mm Hg Vapor Density: 1.1 (air = 1) Solubility (H_20): Complete Appearance and Color: A clear, slightly yellow liquid with typical aldehyde odor and added lemon scent. Odor Threshold: 0.04 ppm, detectable (ACGIH)	Specific Gravity:1.005 – 1.013 Melting Point: N/A Evaporation Rate: 0.81 (Butyl Acetate = 1) Ph: Approximately 6.40 Molecular Weight: 100.11(glutaraldehyde) Freezing Point: 0° C/32° F (same as water)

SECTION 3 – FIRE AND EXPLOSION HAZARD DATA

Extinguisher Media: Carbon dioxide, foam, dry chemical. Special Fire Fighting Procedures: Self-Contained Breathing Apparatus (SCBA) and protective clothing should be worn when fighting chemical fires.	Unusual Fire and Explosion Hazards: None Known Flash Point (Test Method): None (Tag Closed Cup ASTM D 56)

SECTION 4 – REACTIVITY HAZARD DATA

Stability: Stable Hazardous Decomposition Products: Thermal decomposition may produce carbon monoxide. Hazardous Polymerization: Will Not Occur	Conditions and Materials to Avoid: Alkaline (Ph >10) and acidic (Ph < 3) Materials catalyze an aldol-type condensation (exothermic but not expected to be violent). Avoid High temperatures above 40° C/104° F and or evaporation of H_2O.

SECTION 5 – HEALTH HAZARD DATA

Primary Routes of Entry: Inhalation: x Skin: x Ingestion: x Eyes: x

Signs and Symptoms Associated With Overexposure (one-time repeated):

Ingestion: May cause irritation and possibly chemical burns of the mouth, throat, stomach and esophagus. May produce discomfort in the mouth, throat, chest and abdomen, nausea, vomiting, diarrhea, faintness, drowsiness, and weakness.

Eyes: Solution contact may cause damage, including severe corneal injury, which could permanently impair vision if prompt first-aid and medical treatment are not obtained. Vapors may cause stinging sensation in the eye with excess tear production, blinking, and redness of the conjunctiva.

Skin: Direct solution contact may cause skin irritation or aggravation of an existing dermatitis. May also cause skin to turn a harmless yellow or brown color.

Inhalation: Vapor is irritating to the respiratory tract. May cause stinging sensations in the nose and throat, chest discomfort and tightening, difficulty with breathing and headache. May also aggravate pre-existing asthma and pulmonary disease.

Emergency and First Aid Procedure:

Ingestion: DO NOT INDUCE VOMITING. Drink large quantities of water and call a physician immediately
NOTE TO PHYSICIAN: Probable mucosal damage from oral exposure may contraindicate the use of gastric lavage.

Eyes: Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention immediately, and follow up with an ophthalmologist.

Skin: Immediately remove contaminated clothing and flush skin with soap and water for minimum of 15 minutes. If irritation persists, seek medical attention. Wash or discard contaminated clothing.

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. If irritation persists, seek medical help.

Medical Conditions Generally Aggravated by Overexposure: See Above.

BANICIDE® ADVANCED

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Respiratory Protection: None required if glutaraldehyde vapor levels are below the TLV. A full face respirator with organic vapor cartridges or SCBA should be available for emergencies.
Ventilation: BANICIDE ADVANCED should be used in closed containers with tight fitting lids. The working area should be large enough with ventilation necessary to keep the level of atmospheric glutaraldehyde below the Threshold Limit Valve (TLV). If the solution vapors are irritating to eyes and nose, the TLV is probably being exceeded, and additional ventilation may be necessary. A fume hood or self contained fume absorber may be appropriate for this purpose. Any ventilation should pull fumes away from worker and towards the floor.
Eye Protection: Safety glasses, goggles or face shield recommended when working with BANICIDE ADVANCED. An eye wash and full face respirator with organic vapor cartridges or half face respirator with gas proof goggles and organic vapor cartridges should be available situations.
Skin Protection: Nitrile gloves and chemical resistant gown or apron should be worn when working with BANICIDE ADVANCED. Rubber boots may be needed to contain large spills.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE / LEAK PROCEDURES

Steps to be Taken if Material is Spilled Or Released: Wear suitable protective equipment, including nitrile gloves, chemically resistant gown or apron, and protective eyewear (safety glasses or shield). A full face respirator, or half-face respirator with gas proof goggles, both worn with organic vapor cartridges, is recommended for small spills. A respirator is essential for large spills, or if you experience discomfort watery eyes, nasal or respiratory irritation) due to inadequate ventilation. For small spills of 1 gallon or less, gather up a bucket, household ammonia, and a sponge or mop. Don protective equipment and mix approximately 1 cup of water in the bucket. Mop or sponge the ammonia mixture into the spill until thoroughly combined (about 2 minutes). Wipe or mop up resulting mixture and discard down the drain with a copious amount of water. Rinse bucket, mop or sponge with water, and give spill area a final wipe or mop with fresh water. Re-rinse all equipment, and allow spill area to dry. For larger spills of more than 1 gallon, remove people from immediate spill area, and isolate until cleaned up. Don protective equipment including a respirator with organic vapor cartridges. Contain spill with absorbent material, i.e. Towels. Add approximately 228 grams of sodium bisulfite powder per gallon of BANICIDE ADVANCED spilled (aqueous sodium hydroxide and ammonium will also neutralize glutaraldehyde)/ With a sponge, mix neutralizing chemical into spill, and allow 5 minutes for deactivation to occur. Discard resulting mixture according to your facility's waste disposal guidelines. Mop spill area with fresh water. Rinse out all equipment (bucket, mop, towels) with large amounts of water. If paper towels were used, dispose of in a tightly closed trash bag. Let spill area dry, and if possible increase ventilation. Once glutaraldehyde odor is below allowable levels (TLV), area may be released from isolation.
Waste Disposal Methods: Dispose of BANICIDE ADVANCED after 30 days of re-use, or the MEC Indicator shows the solution is below it's minimum effective concentration (1.8% w/v), which ever is sooner. This may be accomplished by pouring solution down the drain in accordance with state and local regulations. Flush with a large quantity of water. Do not reuse empty containers. Rinse thoroughly with water and dispose of in trash.
Precautions to be Taken in Handling and Storage: BANICIDE ADVANCED should be stored in its original sealed container at controlled room temperature (15°C/50° F to 30° C/85° F).
Precautionary Labeling: Avoid contact with eyes, prolonged and repeated contact with skin, and contamination with food.

SECTION 8 TRANSPORTATION DATA & ADDITIONAL INFORMATION

Proper Shipping Name: 3.5% Glutaraldehyde Solution DOT (ground): Not Regulated IATA (air): Not Regulated
IMO (ocean): Not Regulated Hazard Class: None Labels: None needed Packaging: None ID# None
Special Instructions: None Reportable Quantity: None

SECTION 9 SPECIAL REQUIREMENTS

None