

MATERIAL SAFETY DATA SHEET



Date Issued: July 19, 2000

SECTION 1

IDENTIFICATION

A Pro-Dex Company

Distributor's Name and Address: Biotrol International
650 S. Taylor Avenue, #20
Louisville, CO 80027
Phone: (800) 822-8550
Fax: (303) 673-9206

Hazardous Chemicals: Glutaraldehyde
Routes of entry: Inhalation ☒ Skin/Eye ☒ Ingestion ☒

Product Name: BIOCIDEG30™ (2.65% aqueous glutaraldehyde solution)

Product Code: (case of 4 gallons)

Product Type/General Information: Chemical Sterilant/Disinfectant

Chemical Name: (active ingredient) 2.65% glutaraldehyde

PRECAUTIONARY LABELING
(HMIS Rating System)
Health 3
Flammability: 0
Reactivity: 0
Physical Hazard: None

CHEMTREC has been provided information for use in medical emergencies involving this product. Call 1-800-424-9300

SECTION 2

HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

BIOCIDEG30™ contains the following hazardous ingredients at concentrations greater than 1.0%:

CHEMICAL COMPONENTS	CAS%	% w/v	OSHA PEL	ACGIH TLV
Glutaraldehyde (active ingredient)	111-30-8	2.65	0.2 ppm ¹	0.05 ppm

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 3

PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	100°C/212°F	Evaporation Rate:	0.81 (Butyl Acetate = 1)
Specific Gravity:	1.005 - 1.013	Solubility (H ₂ O):	Complete
Vapor Pressure:	16.9 mm Hg	Appearance & Color:	A clear, slightly yellow liquid with typical aldehyde odor and added lemon scent.
Melting point:	N/A	pH:	Approximately 6.30
Vapor Density:	1.1 (air = 1)	Molecular Weight:	100.11 (glutaraldehyde)
Freezing Point:	0°C/32°F (same as water)	Odor Threshold:	0.04 ppm, detectable (ACGIH)

SECTION 4

FIRE AND EXPLOSION HAZARD DATA

Flash Point (Test Method):	None (Tag Closed Cup ASTM D 56)
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
Extinguishing Media:	Carbon dioxide, foam, dry chemical.

SECTION 5

REACTIVITY DATA

Stability: Unstable ☐ Stable ☒ Hazardous Polymerization: May Occur ☐ Will Not Occur ☒

Hazardous Decomposition Products: Thermal decomposition may produce carbon dioxide and or carbon monoxide.

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 H₂O.

SECTION 6 HEALTH HAZARD DATA

Routes of Entry: Inhalation: ☒ Skin: ☒ Ingestion: ☒ Eyes: ☒

Signs and Symptoms Associated With Overexposure (one-time or 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, dizziness, faintness, drowsiness, thirst 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 a 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.

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken if Material is Released or Spilled: 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 ammonia with 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 large 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, ie. towels. Add approximately 228 grams of sodium bisulfite powder per gallon of BIOCIDEG30™ 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), the area may be released from isolation.

Waste Disposal Method: Dispose of BIOCIDEG30™ after 30 days of re-use, or the MEC Indicator shows the solution is below it's minimum effective concentration (1.7% 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 Storing: BIOCIDEG30™ should be stored in it's 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:	2.65% 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 CONTROL MEASURES

Eye Protection: Safety glasses, goggles or face shield recommended when working with BIOCIDEG30™. 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 for emergency situations.

Ventilation: BIOCIDEG30™ 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 Value (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.

Skin Protection: Nitrile gloves and a chemical resistant gown or apron should be worn when working with BIOCIDEG30™. Rubber boots may be needed to contain large spills.

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.

SECTION 10 SPECIAL REQUIREMENTS

None