

SECTION 1

IDENTIFICATION

Manufacturers Name & Address:

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Product Names:

PENTAMAX LF

Product Code:

1 Lt 11780, 5Lt 11760, 11765 25 Lt

Product Type/General Information:

Chemical Sterilant/Disinfectant

Registration Numbers:SOUTH AFRICA: ACT29GNR529/244678/110/441
 Belgium (as G-Extral Forte): 9176/B**Chemical Name:**

(active ingredient) 10% glutaraldehyde

Hazardous Chemicals:*Glutaraldehyde***Routes of Entry:***Inhalation X Skin/Eye X Ingestion X*

SECTION 2

Hazardous Ingredients/Identity Information

THE PRODUCT contains the following hazardous ingredients at concentrations greater than 1.0%

CHEMICAL COMPONENTS	CAS No.	%w/v	OSHA PEL	ACGIH TLV
Glutaraldehyde (active ingredient)	111-30-8	10%	0.2 ppm ¹	0.05 ppm

THE PRODUCT contains the following hazardous ingredients listed as carcinogens or potential carcinogens by the National Toxicology Program (NTP), International Agency on Cancer (IARC) or OSHA, and present at a concentration greater than 0.1%:

CHEMICAL COMPONENTS	CAS No.	%v/w
None	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 the General Duty Clause.

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SECTION 3

Physical/Chemical Characteristics

Boiling Point:	100°C	Evaporation Rate:	
Specific Gravity:	1.008 - 1.009	Solubility (H₂O):	Complete
Vapor Pressure:	16.9 mmHg	Appearance & Color:	A clear or yellow liquid with typical aldehyde odor
Melting Point:	N/A	pH:	Between 5.5 and 7.8
Vapor Density:	1.1 (air =1)	Molecular Weight:	PTY
Freezing Point:	0°C/32°F (Same as Water)	Percent Volatile by Vol.:	Not detectable at normal usage dilution

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: __ Stable **X**

Hazardous Polymerization: __ Will Not Occur **X** at Temperature between -4 °C - 40°C

Hazardous Decomposition Products: Thermal decomposition may produce toxic oxides of carbon eg. CO₂.

Conditions and Materials to Avoid: Enzyme cleaners, Ammonia, Amine containing products – cause horrible smell and inactivate the active ingredient.

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SECTION 6

Health Hazard Data

Route of Entry: Inhalation:**X** Skin/Eye:**X** Ingestion:**X**

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

Ingestion for 2% or higher: 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. Not for concentrations of less than 0.5%.

Skin: Not skin irritant. Avoid contact on existing dermatitis. May also cause skin to turn a harmless yellow or brown color (protein fixing).

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. This is applicable to concentrations of greater than 0.5%.

Emergency and First Aid Procedure:

Ingestion: DO NOT INDUCE VOMITING. Drink large quantities of water and call a physician immediately. (Not necessary for concentrations of less than 0.5%.)

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: 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 visor, or half-face visor or goggles, 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, half filled with water and a sponge or mop. Don protective equipment, mop or sponge the water onto the spill thoroughly. 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, i.e. towels. Add approximately 228 grams of sodium bisulfite powder per liter of the product 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, towel) with large amount 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 order is below allowable levels (TLV), the area may be release from isolation.
- **Waste Disposal Method:** Dispose of the product. 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:** Te product should be stored in it's original sealed container at room temperature (15°C to 30°C).
- **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:	10% Glutaraldehyde Solution	DOT (ground):	Not regulated
IATA (air):	Not regulated	IMO (ocean):	Not regulated
Hazard Class:	None	Labels:	None needed
ID#:	None	Special Instructions:	None
Reportable Quantity:	None		

SECTION 9

Control Measures

- **Eye Protection:** Safety glasses, goggles or face shield recommended when working with THE PRODUCT. An eye wash, and full face visor must be available at all times.

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- **Ventilation:** THE PRODUCT 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. 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 undiluted THE PRODUCT. Rubber boots may be needed to contain large spills.
- **Respiratory Protection:** None required if glutaraldehyde vapor levels are below the TLV.

SECTION 10

Special Requirements

NONE

NOTE: Durotec provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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