

Thermo Scientific Vytac GNF Glutaraldehyde Neutralizer Instructions for Use

For in vitro diagnostic use.

For use as a glutaraldehyde neutralizing agent.

Intended Use

Thermo Scientific™ Vytac™ GNF is intended for use with spent 1% or 2% glutaraldehyde waste only. Aqueous glutaraldehyde solutions and other “commercial” glutaraldehyde products with activator solutions are acceptable. If your waste glutaraldehyde solution contains other contaminants or heavy metals, such as mercury, contact your local wastewater treatment facility when using Vytac GNF Neutralizer to neutralize and dispose of such waste.

Summary

Glutaraldehyde solution is widely used in the healthcare industry as a disinfectant for sterilizing heat sensitive medical instruments and equipment. Generally available in a 2% to 3% solution with other additives or activators, these “used” or waste solutions have become a disposal problem because of the toxic effects associated with them.

When used as directed, one part Vytac GNF Glutaraldehyde Neutralizer reacts with 4 parts spent 1% to 2% glutaraldehyde waste to produce a solution containing a small amount of very fine, inert brown polymer. The solution and dark brown polymer may then be poured down the drain and disposed of as a nonhazardous waste.

Important Notice

Federal, state and local requirements must be observed with regard to hazardous waste disposal. It is the responsibility of the waste generator to comply with local disposal regulations. Contact your local publicly owned wastewater treatment facility prior to disposing neutralized glutaraldehyde waste with Vytac GNF Neutralizer. For more information on complying with regulations, please read the Procedure Notes section before performing the neutralization procedure.

Precautions

Safety Precautions: Suitable protective clothing and adequate ventilation are important when working with glutaraldehyde solutions. The use of gloves, impervious to glutaraldehyde, and safety glasses is recommended.

Storage: Store neutralizer at room temperature. Do not freeze. Do not use past the expiration date stated on the label.

Product Frozen in Transit: Should shipping conditions during winter months result in the product becoming partially or completely frozen, allow Vytac GNF Neutralizer to gradually warm to room temperature. Do not heat product. Heating can adversely affect the neutralization performance. Any crystals remaining in the product after attaining ambient temperature should be resuspended by shaking the container. With this mixing, 95% of the crystals should resuspend. If all crystals do not go back into solution, Vytac GNF Neutralizer will still perform as specified. The neutralization performance is not affected if the product is properly thawed as described above.

Instructions for Use

These directions pertain to neutralization of spent 2% (approximately 1% to 2%) glutaraldehyde waste only.

1. Obtain a suitable container for collecting and measuring spent 2% glutaraldehyde solution waste to be neutralized (such as Vytac Neutralizing Reservoir 8 L).
2. Pour spent 2% glutaraldehyde solution waste into the reservoir to determine volume.
3. Add 25 mL of neutralizer for every 100 mL of spent 2% glutaraldehyde waste to be neutralized (i.e. 1 part Vytac GNF to 4 parts 2% glutaraldehyde solution).
4. Mix solution for several seconds with a stirring rod.
5. Cover reservoir and allow to stand 48 to 96 hours (see Procedure Notes Section #1 below).
6. At the end of the neutralization period, mix to resuspend any polymer precipitate that has formed and pour solution in small amounts down the drain with copious amounts of water. Solid particulate can be contained and disposed of accordingly.
7. Rinse the container and pour down the drain, flushing with an equal volume of water.

Note: The pH of the neutralized glutaraldehyde solution is approximately pH 8.3-9.3, although this may be affected by the amount and type of contaminant (i.e. blood, other body fluids, etc.) contained in the neutralized water. Some publicly owned wastewater treatment plants may require a pH adjustment prior to disposal down the drain. Contact your local wastewater treatment plant for the requirements in your area.

Procedure Notes

1. Local government agencies are responsible for enforcing the federal regulations concerning the disposal of glutaraldehyde. Many of these agencies have established their own guidelines for the amount of glutaraldehyde in ppm (parts per million) that can be poured into their systems. The residual aldehyde allowed in neutralized solutions for drain disposal by these agencies ranges from just under 1,000 ppm to less than 100 ppm. As a general rule, most agencies accept 500 ppm or less for drain disposal. The following table can be used as a general guideline to determine the appropriate amount of neutralizer to add and the neutralization time to use to meet local requirements.

Approximate Waste Glut Concentration	Ratio of GNF to Use	Approximate Glut Concentration
1.2%	1–4	24hr. 3000 (0.3%)
		48hr. 2000 (0.2%)
		72hr. 800 (0.08%)
		96hr. 600 (0.06%)

2. The concentration of glutaraldehyde as well as the chemical activator used to activate the solution will vary among the different brands of glutaraldehyde disinfecting solutions. The amount of contaminant and the type of contaminant (i.e. blood, other body fluids, etc.) contained in the waste glutaraldehyde will also vary from batch to batch. It may, therefore, be necessary to allow the waste glutaraldehyde/Vytac GNF mixture to neutralize longer than the table indicates before pouring it down the drain.

Caution: Solution is alkaline, pH 8.0-9.0

Contact with eyes, skin or mucus membranes may cause irritation or burns.

Prolonged or repeated skin contact may cause dermatitis. Avoid eye and skin contact. Do not breathe mist or vapor. Use with adequate ventilation.

First Aid

If eye contact, flush with copious amounts of water for at least 15 minutes. Call a physician. If skin contact, wash with soap and water. If inhaled, remove person from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. Keep affected person warm and at rest. Get medical attention immediately. If swallowed: if conscious and not convulsive, immediately give 2 to 4 glasses of water or milk. DO NOT INDUCE VOMITING. Do not give anything by mouth to an unconscious person. Get medical attention immediately.

Order Information

Product	Size	Qty	Ref
Vytac GNF Glutaraldehyde Neutralizer	1 gal.	4/cs	5408
Vytac GNF Glutaraldehyde Neutralizer Reservoir with Cover	8 L-capacity	1	5403
ABsorb-F Spill Absorbent	380 gm	2/pk	5400
Measuring Cup	500 mL-capacity	1	5404
Stirring Rod		1	5406

