

Best Management Practices Glutaraldehyde



Introduction

Glutaraldehyde has a wide variety of uses and is found in many industries and occupations. It is used primarily as a biocide, but may also be used for the following:

- As a cold disinfectant in the health care industry;
- As a hardener in x-ray film processing;
- As a biocide in water treatment, in sanitary solutions for aircraft and portable toilets, and in aquaculture;
- As a disinfectant in animal housing;
- As a fixative in hide tanning;
- As a preservative in industrial oils;
- As a therapeutic agent; and
- In small quantities as a disinfectant for air ducts, as an embalming agent, as a tissue fixative in electron and light microscopy.

Disposal of Glutaraldehyde Solutions

Dispose of glutaraldehyde solutions in accordance with local, state, and Federal regulations. The LOTT Clean Water Alliance requires all glutaraldehyde solutions to be neutralized prior to disposal. Do not discard glutaraldehyde solution (including neutralized solutions) into septic systems. Unlike municipal sewage treatment systems, septic systems are not diluted by other waste streams. Consequently glutaraldehyde concentrations entering the system may be higher and have an adverse effect on the microorganisms that are necessary for proper functioning of the septic system. Dispose of empty glutaraldehyde containers according to product label instructions.

Neutralizing Chemicals

Before using any type of glutaraldehyde-based product, review the manufacturer's recommendations for spill cleanup. Several chemicals can be used to lower the glutaraldehyde concentration in solutions and/or the ambient vapor level during a spill. Examples include household ammonia, ammonium carbonate powder, dibasic ammonium phosphate, and sodium bisulfite. Glycine is also used as a neutralizer and may be less hazardous than others. There are also several chemicals sold commercially that are specifically for glutaraldehyde neutralization.

Spill Cleanup

All spills should be cleaned up immediately, regardless of size. All necessary spill cleanup equipment (e.g., sponges, towels, absorbent mats/wipes, spill pillows, mop and bucket, plastic dustpan and trash bags) and personal protective equipment (i.e., eye, hand, body and respiratory protection) should be readily available. Any spill larger than a drip or a splash, depending on the concentration, may need to be neutralized; and, when vapor concentrations are unknown, air-supplied or atmosphere-supplying respirators are appropriate.



For additional information on safe usage of glutaraldehyde, visit the OSHA website at www.osha.gov