Legal Disposal of Hazardous Formalin and Disinfectant Waste Using Approved Governmental Standards

By Scigen Inc.

The main objective of treating aldehyde-containing waste is to remove its toxic properties from our drinking water; thereby reducing the likelihood of getting aldehyde related cancer or sensitization. The Neutralex® treatment technology is government approved for treating toxic aldehyde waste. It completely detoxifies aldehyde waste in less than 15 minutes.

Neutralex® is designed to produce a non-toxic solution that can be disposed to the sewer system without fear of contaminating the environment. The treatment standard involves mixing the aldehyde-containing waste with a specified amount of Neutralex®. The Neutralex® Starter pack contains all necessary documentation to comply with governmental waste treatment and disposal standards.

Neutralex® is the only hazardous waste technology that is Government Certified. Neutralex® is authorized to use the official certification seal of California EPA and California DTSC. The purpose of this certification is to provide an independent technical evaluation of a technology, to establish quality standards, to verify non-toxic characteristics, to facilitate prudent environmental regulatory and to insure end-user acceptance. If the certification seal is not present on the packaging, you are using an illegal product, and disposing of hazardous waste in an unlawful manner. Many times, medical and dental facilities are inspected by quality assurance auditors, like the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), or by the College of American Pathologists (CAP). In California, the Medical facilities and Laboratories are also inspected by their local CUPA.

Neutralex® has been extensively used to treat histopathological formalin waste. Typical waste streams include tissue transportation containers and tissue processors. The technology has also been used to treat alcoholic formalin and many other formalin blends. Neutralex® can be used to treat formaldehyde in Hematology System waste. Neutralex® is effective in neutralizing aldehyde present in sterilizing and
disinfectants agents used in medical and dental facilities. Glutaraldehyde contained in products like Maxicide and CIDEX Plus antimicrobial agent is effectively neutralized and is suitable for discharge to a domestic sewer system. Neutralex® is also effective in treating CIDEX® OPA.

The main focus of our discussion is to provide an understanding of what aldehyde solutions can currently be treated, and to provide a certified standard to each facility dealing with aldehyde waste. The treatment standard appearing below is intended for the treatment of 10%-formalin and 3.3% glutaraldehyde waste. Other waste treatment standards are available, and can be obtained by contacting Scigen at 310-324-6576.

**Treatment Standard**

A. Refer to manufacture’s MSDS for safe handling of 10% formalin or 3.3% glutaraldehyde and OSHA mandated protective equipment (e.g., safety goggles, gloves, impervious apron, etc.).

B. The aldehydic waste is collected in a calibrated reaction vessel. Volumetric calibration can be in gallon or liter divisions, preferably gallons.

C. All identifiable tissue must be separated from the liquid hazardous waste either before or after treatment.

D. Calculate the volume of Neutralex® required to de-toxify formaldehyde or glutaraldehyde waste as follows: determine the total volume in whole gallons of 10% formalin or 3.3% glutaraldehyde present. Use one pouch of Neutralex® per gallon of aldehydic waste. Pour the complete contents of each pouch into the calibrated reaction vessel. Shake or stir the mixture for five to ten seconds.

E. Cap the vessel and let it stand 15 minutes.

F. Test the treated waste solution for pH.

G. Test the treated aldehydic waste solution for residual formaldehyde or glutaraldehyde using the Aldehyde Test Kit and its enclosed quantitative procedure.

H. Discard detoxified aldehydic waste to a sanitary sewer system according to your POTW discharge permit. Record residual formaldehyde or glutaraldehyde concentration in ppm, quantities treated, date, and facility site ID on to the waste treatment log sheet.

*Neutralex® treated waste meets all local, state and federal disposal standards. Typical treatment is less than 1 ppm of residual aldehyde.*

Neutralex®, Neutra-Form®, Neutra-Wipes®, Neutra-Pads® are a resister trademark of Scigen Inc.