

Disposal of Liquid Organic Peroxides

All organic peroxides are, by definition, unstable. Products requiring refrigerated storage are, in particular, unstable under ambient condition. Some organic peroxides may also be flammable. For this reason, any material that is out of date or off-spec and cannot be reclaimed may be considered hazardous waste. Such material should be stored, treated or disposed of only by authorized facilities.

Dilution and incineration

Dilution and incineration is the recommended disposal method for small quantities of both refrigerated and ambient storage liquid organic peroxides. Due to current environmental regulations, this method has become the preferred method of liquid organic peroxide disposal.

This guidance is NOT intended for disposal of solid organic peroxides. Solid organic peroxides should be disposed of “as is” or as water wet mixtures. Please review the separate guidance for disposal of solid organic peroxides if appropriate.

Dilution of organic peroxide to less than 1% active oxygen, or less than 10% by weight (whichever is lower), in a satisfactory solvent is recommended by The Organic Peroxide Producers Safety Division (OPPSD). Fuel oil #2 or common hydrocarbons (which are readily soluble with liquid organic peroxides) are the most widely used solvents. The solvent should be the same temperature as the liquid organic peroxide being diluted.

Incineration can be accomplished after satisfactory mixing. After dilution the incineration of the solution will be similar to the incineration of the solvent. The heat contribution due to decomposition of the liquid organic peroxide will be negligible.

Incineration has the advantage of providing rapid and complete decomposition along with the elimination of decomposition products. Direct incineration is an accepted means of disposal for all organic peroxides and is often the preferred method for large quantities. Disposal must comply with Federal, State and Local regulations.

For specific disposal recommendations for MEKP, see OPPSD Recommended Disposal of MEKP.

As in all cases involving safety issues, contact an organic peroxide supplier for assistance or have questions.