

Organic Peroxide Producers Safety Division (OPPSD) Disposal of Liquid Organic Peroxides

This guidance is NOT intended for disposal of solid organic peroxides. Unlike liquid organic peroxides, dilution is not generally accepted for disposal of solid organic peroxides. Please review the separate guidance for disposal of solid organic peroxides if appropriate found on the OPPSD website ([link](#)).

All organic peroxides are intended to be unstable. Products requiring temperature-controlled storage are unstable at ambient temperature. Some organic peroxides may also be flammable. For this reason, any material that is beyond the shelf life or off-spec and cannot be reclaimed may be considered hazardous waste. Such materials 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 temperature controlled and ambiently stored liquid organic peroxides. Due to current environmental regulations, this has become the preferred method of liquid organic peroxide disposal.

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 OPPSD. Fuel oil #2 or common hydrocarbons (which are readily soluble with liquid organic peroxides) are the most widely used solvents. The solvent should first be cooled to the same temperature as the liquid organic peroxide being diluted. In the case of temperature-controlled peroxides, the appropriately diluted material should continue being stored at the recommended storage temperature of the original peroxide formulation. Dilutions of some temperature-controlled organic peroxides, such as peroxyesters and peroxydicarbonates, have been observed to generate carbon dioxide if stored at ambient temperatures. This can cause excessive pressure within the disposal container if the diluted peroxide is not maintained at the appropriate temperature before disposal.

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 found on the OPPSD website ([link](#)).

As in all cases involving safety issues, contact your organic peroxide supplier or PLASTICS for assistance or with questions.

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