



Organic Peroxide Producers
Safety Division

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](#).

All organic peroxides are thermally unstable. Products requiring temperature-controlled storage are unstable at ambient temperature. Organic peroxides can be destabilized by contamination with other materials. For this reason, organic peroxide waste must not be mixed with other waste materials. 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

Due to current environmental regulations, dilution and incineration has become a common method of disposal for small quantities of both temperature controlled and ambiently stored liquid organic peroxides.

Organic peroxides can be diluted to less than 1% active oxygen, or less than 10% by weight (whichever is lower), in a satisfactory solvent. Fuel oil #2 or common hydrocarbons (which are readily soluble with liquid organic peroxides) are 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.

After satisfactory 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. All organic peroxides can also be disposed by direct incineration, which is a common method for large quantities. Disposal must comply with Federal, State and Local regulations.

For specific disposal guidelines for MEKP, see Disposal of MEKP found on the [OPPSD website](#).

As in all cases involving safety issues, contact your organic peroxide supplier for assistance or with questions regarding design features such as materials of constructions or safety interlocks.

This document is not intended to serve as legal advice, a substitute for in-depth training or specific handling or storage requirements, nor is it designed or intended to define or create legal rights or obligations. All persons involved in the responsible disposal of wastes and containers have an independent obligation to ascertain that their actions are in compliance with current federal, state and local laws and regulations and should consult with legal counsel concerning such matters. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

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