

Peroxide-Formers: Aging Chemicals, Hidden Risks

Peroxide-forming chemicals can become unstable and potentially explosive when stored incorrectly or for extended periods.

Know the Risks

Certain chemicals react slowly with oxygen in the air to form organic peroxides. Over time, these peroxides can accumulate and become highly shock-, heat-, or friction-sensitive. Simply opening, moving, or handling an aged container may result in a serious incident.

How to Prevent

● Manage Inventory Regularly

Review chemical inventory routinely and dispose of peroxide-formers that are no longer required or have exceeded their recommended storage period.

● Inspect Before Use

Visually inspect container before handling or opening. Look for signs of deterioration, discoloration, evaporation, or peroxide formation (crystals around cap or in solution).

● Proper Storage and Testing

Store in airtight containers in a cool, dark place away from heat, light and ignition sources. Test for presence of peroxides annually after opening, and prior to evaporation or distillation.

● Important Note

Label containers with dates received, opened, and tested. If peroxide formation is suspected, do not move or open the container, contact Health & Safety immediately.

Most Common Peroxide-Formers on Campus

2-Propanol
Diethyl Ether
Diethylene Glycol
Methyl Tert-Butyl Ether
Tetrahydrofuran (THF)

Did You Know . . .

Test strips and Peroxide-Former labels are currently provided at no charge by H&S and are available to be signed out from UR Stores.

If you would like a list of peroxide-forming chemicals in your labs inventory contact H&S.

Proper Storage Protects Everyone

Questions?
Get in touch with us!



Health & Safety

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