



Separation of Incompatible Chemicals

This fact sheet summarizes options that can be used to separate incompatible chemicals. Hazardous waste regulations and the fire code require that incompatible materials be stored separately.

What does “incompatible” mean?

Chemical reactions occur when certain chemicals are mixed together. In uncontrolled circumstances (e.g. spills), chemicals that are not compatible with each other may react with one another and produce any of the following hazards:

- Heat or pressure
- Fire or explosion
- Violent reaction
- Toxic dusts, mists, fumes, or gases
- Flammable fumes or gases

Chemicals which, when mixed with each other, can react to produce these conditions are termed “incompatible.” They must be stored separately in order to prevent uncontrolled chemical reactions.

Options that can be used to separate incompatibles may include:

- Distance – separate by a distance of no less than 20 feet
- Partition – isolate using partitions
(*Construction of partitions may require local building official approval prior to installation.*)
- Cabinets

How to determine chemical compatibility

Chemicals can usually be grouped into generic hazard groups with the more common groups being flammable/combustible, acid, alkaline, oxidizer, and reactive. These groups are incompatible with each other and must be stored separately. For further reading, consult the following EPA guidance document. For further reading, please see the attached USEPA guidance.

The best way to determine incompatibility is to consult the Safety Data Sheet (SDS). Section I of the SDS will identify the chemical family and Section IV (Reactivity Data) will identify incompatible materials. Hazardous wastes may have undergone chemical changes in the process of becoming a waste. If the waste has not retained the same chemical properties as the material, consult the waste profile (for disposal) or a professional to help you determine which hazard group the waste belongs in.

Note: This fact sheet is intended for informational purposes only and may not encompass all the laws and regulations to this topic. More details may be found at Cal/EPA Department of Toxic Substance Control: www.dtsc.ca.gov. If further information is needed, call the County of Los Angeles CUPA at (323) 890-4045, or your local district office.

References

- Title 22 California Code of Regulations 66262.34(a)(1)
- Los Angeles Code of Ordinances, Title 32, 5003.9.8

