# GELLEDHALOCARBONS

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Definition and understanding of thixotropic gels. Pumpable - shaken or stirred. Becoming liquid yet maintaining a gelled form. Long-term stability without settling **or** stratification.

The history of gelation - Napalm, food, drug, etc. Particularly to fire extinguishment and halocarbon gelation. Military requirement for residual fire kill on vehicles, which was not affordable due to halon dissipation and storage caking of powders.

With the phaseout of halons the inability or reduced firefighting capability of HCFC or HFC low **or** zero Ozone Depletion Potential chemical replacements existed. By gelling extinguishing powders in these low ODP halocarbons, increased fire kill was obtained, approaching halon standards.

Cleanliness is always a consideration, but if the gelled agent is nonconductive, noncorrosive, nonsticky, it can be cleaned by air, vacuum, or even water.

By a selective use of halocarbons and powders; fire suppression characteristics, toxicology, corrosion, and environmental considerations can be addressed. Many combustion byproducts can be scavenged and reduced.

Flash atomization of the gaseous agent affords distribution of the powder in a gas manner, particularly in going through clutter.

Areas of aossible value are machinery spaces, applications where space and/or weight are important, existing installations where major physical retrofit costs could be incurred, fire byproducts must be controlled.

**(See "Gas vs. Economics and Environmental Questions" in Session 6 for complete information.)**