

Bulletin

Fire Resistant Fluid Fakes & Imposters

Glass wool with no fuel value is dipped in each subject fluid and ignited with a propane torch.

Note that all the ISO Classification HFDR type *non Phosphate Ester* fluids continue to burn, sustaining combustion just like the mineral oil.



This may come as a surprise but some so called fire resistant fluids are imposters. They do not provide the basic threshold characteristics for fire resistant fluids, that is, not sustaining combustion and remaining difficult to ignite during service. These ISO Class HFDR fluids are easily shown by standard fire tests like the hot manifold ignition ISO test to be not self extinguishing.

1. Non phosphate ester ISO Class HFDR type synthetic fluids that are often promoted as alternates for the proven Fyrquel[®] EH series ISO Class HFDR phosphate ester fluids are easily shown on the adjacent picture continuing burning once ignited. This is unlike phosphate ester fluids which are inherently self extinguishing and do not sustain their own combustion. Visit www.fyrquel.com to view a short 5 minute demonstration clearly showing Polyol Ester and Polyalkylene Glycol and a so called biodegradable type synthetic fluid continuing to burn sustaining combustion after ignition.
2. The latest edition of NFPA 850 *Recommended Practice for Fire Protection for Electric Generating Plants* was issued effective Jan 2010 and includes the 3.3.14.1 Definition *Fire Resistant Fluid*: "A listed hydraulic fluid or lubricant that is difficult to ignite...and does not sustain combustion due to its low heat of combustion". Phosphate ester fluids satisfy this NFPA 850 definition, the other type fluids do not.
3. GE Energy's and other OEMS definition of a fire resistant fluid is: a self-extinguishable (non-continuous burning) fluid.
4. A 3rd generation HFDR phosphate ester fluid named Fyrquel[®] EHC Plus is available that features a lower cost and more sustainable product design. Made with a new improved and more stable base stock, the new product has improved air properties, longer service life and a reduced hazard profile that is equal to or better than any fluid.

To learn about easily changing to the next generation Fyrquel[®] EHC Plus fluid contact your Fyrquel[®] fluid Representative.