

**NFPA 10-2026 Edition**

***Standard for Portable Fire Extinguishers***

**TIA Log No.: 1864**

**Reference:** 5.5.4.7.1 and 5.5.4.7.2

**Comment Closing Date: October 17, 2025**

**Submitter:** Eric Knight, Watershape University

[www.nfpa.org/10](http://www.nfpa.org/10)

*1. Delete paragraphs 5.5.4.7.1 and 5.5.4.7.2 and renumber accordingly as follows:*

**5.5.4.7\* Areas Containing Oxidizers.**

**A.5.5.4.7** The purpose for providing portable fire extinguishers in areas where oxidizers are stored is to provide first aid fire suppression for incipient fires in materials adjacent to or in the same area as the oxidizers. Fires involving oxidizers are typically beyond the capability of portable fire extinguishers. The use of some types of portable fire extinguishers on oxidizers could generate a chemical reaction, resulting in potential explosive compounds or otherwise exacerbating the emergency, and should not be permitted in the area where oxidizers are stored or used.

~~5.5.4.7.1 Only water or foam extinguishers shall be installed in areas where pool chemicals containing chlorine or bromine are stored.~~

~~5.5.4.7.2 Multipurpose dry chemical fire extinguishers shall not be installed in areas where pool chemicals containing chlorine or bromine are stored.~~

~~5.5.4.7.3~~ **5.5.4.7.1** Fire extinguishers intended for use where oxidizers are stored or used shall be selected and installed based on the specific recommendations contained within the material's safety data sheet (SDS) for the oxidizer, surrounding conditions, and NFPA 400.

**Substantiation:** I do not know about the dry extinguishers, but I do know that water extinguishers are not viable for dry chlorines. They actually IGNITE dry chlorine, and we have countless examples of this. I can show you videos and photos of pool professionals with truck fires due to rain getting into their buckets in the bed of the truck. Additionally, the Bio-Lab fire in Conyers GA in 2024 was started due to a sprinkler system showering water on dry chlorine ([https://www.csb.gov/us-chemical-safety-board-releases-investigation-update-into-september-2024-massive-fire-and-toxic-plume-at-bio-lab-facility-in-georgia/#:~:text=Facility%20in%20Georgia,U.S](https://www.csb.gov/us-chemical-safety-board-releases-investigation-update-into-september-2024-massive-fire-and-toxic-plume-at-bio-lab-facility-in-georgia/#:~:text=Facility%20in%20Georgia,U.S).)). Same with the fire at Texas Pool Supply with calcium hypochlorite (<https://www.wfaa.com/article/news/local/collin-county/frisco-texas-fire-chemical-shelter-in-place-dallas-north-tollway-pool-supply-business/287-8f47f766-844d-482d-b087-546c5dd691f6>). It was a pallet of cal hypo outside of the warehouse that had a broken lid, and it rained. The fire spread to the building. It is well known in our industry that water does NOT put out chlorine fires, it does the exact opposite. We have been told by several fire Marshalls that have put out such chlorine fires that a class-D extinguisher is needed. I contacted two extinguisher manufacturers and they said they cannot sell class-D for pool chemical uses unless this standard says it's okay. I'm writing this because there are about 70,000 pool pros who transport, use and store these chemicals every day, and they have no safe way of extinguishing a fire in their truck without calling 911. I understand studies must be done to test a class-D (or whatever other options there are) to put out a cal hypo, trichlor, dichlor, or other pool chemical fire. Please do so. It's okay to add dry chlorines into water (because the heat generated disperses

into the water), but spraying water on dry chlorine ignites it. It's super dangerous to put water extinguishers in pool chemical storage areas like pool pump rooms, warehouses, etc.

**Emergency Nature:** The Standard contains an error or an omission that was overlooked during the regular revision process. The proposed TIA intends to offer to the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation. The proposed TIA intends to accomplish a recognition of an advance in the art of safeguarding property or life where an alternative method is not in current use or is unavailable to the public.

The basis for this is two major fires last year at warehouses, and two fatalities of pool pros who were killed in mild traffic accidents on rainy days, not due to the impact, but due to the fire caused by water igniting their chlorine in their truck. We need a reliable extinguisher for chlorine and other pool chemical fires, and we've been told that's a Class-D. If so, getting a class-D approved AND removing water as the recommendation for pool chemical fires, the safety of these people will be improved. Again, I don't know if class-D is the only answer, but I've heard its what fire departments have to use when they cannot put out these fires. They have told me class-D is the only thing that seems to work.

Calcium hypochlorite in particular is volatile with water, and calcium is an alkali-earth metal. One fire marshall told us it's considered a metal fire, which is likely why class-D seems to work. I was also informed by a chemist for a cal hypo manufacturer that A-B-C fire extinguishers can actually make the fire burn hotter. I personally do not understand the science of this, but we care deeply about our industry and the professionals in it that handle, store and transport these products daily. This also applies to homeowners. There are approximately 10 million homes with pools that use these chemicals. Just google "chlorine fire" or "chlorine explosion" and you will see countless stories of mixing chemicals or adding water to chemicals that cause a fire.

This source also mentions calcium hypochlorite (cal hypo) being volatile and flammable when mixed with water: [https://www.fireengineering.com/technical-rescue/chemical-data-notebook-series-58-calcium-hypochlorite/#:~:text=Calcium%20hypochlorite%20will%20not%20burn,is%20Ca\(CIO\)2](https://www.fireengineering.com/technical-rescue/chemical-data-notebook-series-58-calcium-hypochlorite/#:~:text=Calcium%20hypochlorite%20will%20not%20burn,is%20Ca(CIO)2). And so does OSHA: <https://www.osha.gov/publications/hib19911114>

I'm submitting this change for consideration because we *know* water can ignite these chemicals. If Class-D is the answer, please consider whatever tests are necessary so we can get the right extinguishers in the hands of those who need them. Thank you.

Anyone may submit a comment by the closing date indicated above. Please identify the TIA number, state whether you SUPPORT or OPPOSE the TIA along with your comment, and forward to the Secretary, Standards Council. [SUBMIT A COMMENT](#)