

If you are a supervisor, you play an important role in preventing mishaps with hazardous material. Acquaint yourself with the hazmat used in your spaces. More importantly, remember that the young Sailors depend on you. ☺

*The author was assigned to the Naval Safety Center's reserve unit when he wrote this article.*

*Send comments or questions on the article to [afloat@safetycenter.navy.mil](mailto:afloat@safetycenter.navy.mil).*

### For More Info...

<sup>1</sup> According to paragraphs C2302e and D1502e of the NavOSH Program Manual for Forces Afloat (OpNavInst 5100.19C, with change 2), you never should transfer material without labeling its container with the material name, manufacturer's name, and the nature of the hazard (including which organ in the body it attacks).



# Here, Smell This!

*By GSCS(SW) Brad Spahnie,  
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**A** ship secures from sea-and-anchor detail. A fireman then is assigned to disinfect the potable-water hoses and fittings, and to make connections from the pier to the riser on the ship.

A fireman apprentice goes over to see what his shipmate is doing. The fireman entices the fireman apprentice to take a big whiff of the calcium hypochlorite he is using. Immediately, the fireman apprentice starts hacking and coughing, and soon becomes so ill he has to go to his berthing compartment.

A PO3 sees the fireman apprentice isn't getting any better and calls a duty corpsman, who sends him to the base hospital. Doctors treat the victim for chemical exposure.

This true story points out a danger of calcium hypochlorite, a chemical compound that requires special handling and stowage. In granular form, it is used to disinfect potable-water fittings, hoses and tanks. It also can be used to purify water in an emergency, to decontaminate personnel, and to clean up sewage spills.

Sailors who handle this strong oxidizer must follow these requirements<sup>1</sup>:

- Storage cabinets must be made of steel. They also must be painted gray. "Warning Hazardous Material, Calcium Hypochlorite" must be



*Illustration by DM1(AW) Eulogio Devera*

displayed in 3/8-inch red letters on a white background.

- Cabinets must have three 1/4-inch holes drilled through the bottom for venting.
- Cabinets must be locked at all times and must be located above the full-load waterline in a space not subject to temperatures above 100 degrees. They cannot be located in machinery spaces, oil-test-laboratory areas, or berthing spaces.
- Only personnel designated by the medical officer or the engineer officer can issue calcium hypochlorite.
- No more than 48, six-ounce bottles can be stored in any one locker.
- Do not place lockers within 5 feet of any heat source greater than 140 degrees, and never expose calcium hypochlorite to open flame. Make sure the lockers are not subject to condensation or water accumulation. When calcium hypochlorite

contacts high heat or water, it can produce toxic chlorine and phosgene gas.

- Keep oxidizing chemicals away from oils, greases, paints, detergents, and other organic material. Otherwise, there may be a violent reaction or fire.
- Ensure people who use calcium hypochlorite are trained in mixing techniques and precautions. Always wear PPE, including neoprene gloves, protective coveralls, safety splash goggles, and faceshield.
- Clean calcium hypochlorite lockers according to the PMS schedule. ☺

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### For More Info...



<sup>1</sup> These requirements come from NSTM 670, Stowage, Handling, and Disposal of Hazardous General Use Consumables; NavMed P-5010, Manual for Naval Preventive Medicine, Chapter 6; General Specifications for Overhaul of Surface Ships, Section 671; and MIP 6521/601-75.

# Enough Is Enough!

*By HMCS(SW) Richard Bulgin, USN (Ret.)*

**D**o you often find excessive or unauthorized hazmat aboard your ship? Do you know what your hazmat requirements are and how to determine when you have enough? If what we see during safety surveys is any indication, quite a few ships don't have the right answers to these questions.

The most common reason for the problems is that the ship's coordinator hasn't caught up with changes in PMS requirements, or there is confusion caused by different national stock numbers (NSNs) for various brands of items that are generically similar. Many times, an item will be listed in the "prohibited" or "restricted" category because it's slightly different from the item actually required.

A good example of this latter problem involves PD-680, a dry-cleaning fluid. The CD-ROM for the hazardous materials information system (HMIS) lists more than 100 different companies that make some form of this product. However,

there is only one authorized NSN<sup>1</sup> for PD-680, Type II, which is used aboard ship. There are six authorized NSNs for PD-680, Type III<sup>2</sup>.

Problems with hazmat control and management don't end here. No ship will have a valid need for all items on the Ship's Hazardous Material List (SHML). The fact that an item is listed on the SHML does not prove a "valid need." The SHML acts only as a guide so ships can assess their own needs. If a valid requirement exists, and the material is not listed on the SHML, or it's listed with a P (Prohibited) or N (Not Identified), you need to submit an SHML Feedback Report (SFR).

Another problem deals with the open purchase of hazardous materials. In the case where a stock-numbered product proves to be inferior, or the supply system cannot meet the urgency of need, an open purchase may be permitted. The commanding officer (or a designated officer O-5 or above) must sign the SFR, and it must be