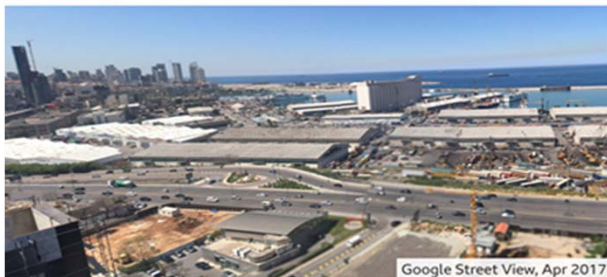


Hazardous Chemicals Hidden in Plain Sight

October 2020

Devastation on the Beirut dockside



Beirut Lebanon Port area before and after the August 4, 2020 explosion

On August 4, 2020, a massive explosion occurred in Beirut, Lebanon that killed at least 160 people, injured more than 5,000 and left an estimated 300,000 people homeless*. At this time, no estimate of damages or cause of the explosion are available. The material, ammonium nitrate (AN), is a common fertilizer, but is also used as a blasting agent in mining. Approximately 2750 tonnes (3030 US tons) were stored in a warehouse for over 6 years. Local officials were aware of the material's presence and age, but insufficient efforts were made to manage the storage operation. Some ports have taken steps to limit or eliminate storage of AN in response to the Beirut explosion. (ref. Washington Post August 21, 2020)

Often, we walk by things every day and do not "see" them because they have been there so long. This is more than a housekeeping concern. Proper storage is essential for all chemicals especially those that can degrade.

Are there drums or other containers of chemicals in your area that aren't often used? Have you ever looked at their labels? (* statistics at the time of this Beacon)

Did You Know?

- Some chemicals have a shelf life and can degrade when they are stored too long or at improper conditions. Moisture, air or other materials can lead to degradation.
- Degradation can:
 - result in loss of potency, making the material less effective.
 - affect additives that keep hazardous materials safe such stabilizers or inhibitors.
 - lead to violent, potentially catastrophic decomposition. (ref PS Beacon January 2006) (<https://www.aiche.org/ccps/resources/process-safety-beacon/archives/2006/january/english>)
- Safety Data Sheets (SDS) usually provide proper storage conditions and directions for proper handling and disposal.
- Chemicals that aren't needed in the area are potential sources of leaks and spills.
- Having more material in the area than is needed can increase the impact if a spill or release were to occur.

What Can You Do?

- Look for drums or containers that have been in your area for a long time. Check them for an expiration date and confirm the proper storage conditions.
- If you find an out-of-date container, notify your supervisor immediately. Do not try to open or move an old container – the material may be unstable or the container may be corroded.
- Even if a container is not beyond its expiration date, ask why it is there. Perhaps it was left and has been forgotten. It needs to be sent to the proper storage area.
- When using materials look for the date manufactured and use the oldest material first – **IF IT IS NOT EXPIRED!**

Watch for materials stored in your area for a long time.