

Time Sensitive Chemicals – and Sharing Lessons Through 50 CCPS Process Safety Beacons!

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Many chemicals have a ‘shelf life’, they become unstable or reactive with time in storage. For example, some monomers require inhibitor to prevent polymerization, and, after a period of time, the inhibitor is consumed. The manufacturer of such chemicals will normally provide an “expiration date” for the material, and it is important to use the material or properly dispose of it before that expiration date.

A company had two “near misses” – bulging or ruptured drums – because time sensitive chemicals had been stored too long.

Fortunately nobody was hurt, and damage was minor. The company had a good system for reporting and sharing near misses, and these incidents were shared throughout the organization. Another plant saw the reports, and immediately checked all of the material in the warehouse. They found four drums of the same material which were past the expiration date and had begun to polymerize. Luckily, none of the drums had ruptured. The plant safely discarded the material and a potential explosion or injury was avoided.



Did You Know?

- Some reactive chemicals must be used by a specified date or they will become unstable.
- Other chemicals can accumulate impurities (such as peroxides) over time and can also become unstable.
- Material Safety Data Sheets (MSDS) should tell you if materials can become unstable with time or need special storage conditions.
- Reporting and investigating “near misses” is an excellent way to prevent future incidents.
- That the December 2005 Beacon was the 50th issue, sharing lessons from safety incidents with thousands of people in 11 languages.

PSID Members see Free Search: Reactive Chemicals

What You Can Do

- Know if chemicals in your workplace can become unstable during storage – check the MSDS, with your safety specialist, or contact the supplier.
- Understand and follow your company’s procedure for managing time sensitive materials (make sure you have one!); they should not be stored too long.
- Report all incidents and near misses to help prevent future incidents.
- Share incidents with us at the CCPS Beacon so we can all learn from your experiences, and **READ AND SHARE THE BEACON!**



Learn from experience – report and share incidents and near misses!