

# Storage of Packed Chemicals

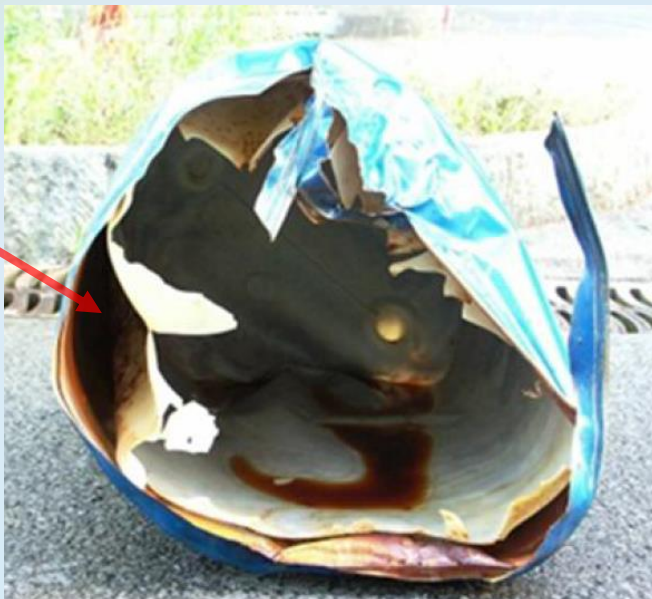
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**EPSC**

## What Happened:

After 6 years of storage a drum was rocketed through the roof of a storage facility. Nitric Acid had leaked through the liner forming hydrogen at the iron wall. On a warm day the hydrogen pressure ruptured the metal, launching the 200 litre drum through the roof.



## Aspects:

- Critical chemicals can decompose or react with the packaging materials. Well known are: peroxides, acids, stabilized chemicals, oxidisers, certain compressed gases
- Chemicals can permeate through plastic bottles and liners
- Storage conditions like temperature and time are relevant and need to be inline with suppliers advise
- Hazards of stored chemicals are not always part of a HAZOP, but reactive hazards must be well identified & understood
- Storage time and expiration date need to be monitored and controlled by a system and trained people
- Inspect packaging of stored chemicals and check for deformed vessels, that might indicate pressure or corrosion

**Check expiration date of stored chemicals**