Environment, Health and Safety
Hazard Alert

Incident Summary:
A bottle of 70% perchloric acid was stored within a metal transport container inside of an acid cabinet for a period >3 years, along with other strong acids. Vapours within the cabinet corroded the metal container, making it impossible to safely assess the state of the perchloric acid as a time-sensitive chemical with a potential explosion hazard.

Investigation Findings:
• Perchloric acid was stored within a container of incompatible material and alongside incompatible chemicals.
• Perchloric acid was not dated or monitored for crystallization.

Actions Taken:
• Third-party contracted to safely remove perchloric acid from the metal container for disposal. Response included blast prevention measures.
• EHS revising and preparing to publish Lab Safety Standards with guidance on time-sensitive chemicals.

Key Takeaways:
• Do not store metal containers within a corrosive cabinet.
• Refer the Safety Data Sheet for appropriate storage conditions and incompatibilities.
• Label time-sensitive chemicals with date received and date opened, monitor regularly for signs of crystallization and/or degradation, dispose using Chematix.

Resources:
• Corrosive Materials Standard
• Chemical Storage and Waste Handling Standard