



Safe Method of Use for Hazardous Substances of Higher Risk 1

Picric Acid (2,4,6 Trinitrophenol)

Purpose: This Higher Hazard Safe Method of Use applies to **principal investigators (PIs), sector managers, designated laboratory person (DLPs)**, technical staff and students who use Picric Acid within the University of Auckland.

Picric acid (Trinitrophenol) is normally stored in a desensitised state with at least 30% (w/w) water or ethanol.

In dry form picric acid is a shock-sensitive high explosive! Dry Trinitrophenol is a shock sensitive high explosive with a detonation velocity of 7350 m/sec (TNT has a denotation velocity of 7300 m/sec).

Picric acid can form, extremely shock sensitive picrates with metals and concrete. It is imperative that any spill on metal or concrete not be allowed to dry. Any container of picric acid with a metal lid must be disposed of immediately by qualified personnel.

A. Storage

- Storage of picric acid in the University of Auckland should be restricted to approved storage areas where an **approved handler** will regularly inspect containers to ensure water levels are maintained.
- Picric acid **MUST** be stored away from sources of heat.
- Picric acid **MUST** be stored in a cool area where water levels are easily and readily checked.

B. Use.

- Picric acid **MUST NEVER** be allowed to reach a dry state.
- Do not attempt to weigh wet powder or use metal spatulas. Dispense as a saturated solution (saturated solution contains 1g picric acid per 78mls water).
- Dilute any spills immediately and do not allow picric acid solution to dry on the threads of screw caps. Wipe the cap with a water saturated cloth and rinse cloth immediately.

- Picric acid is toxic and must not be allowed to become in contact with skin. It must be handled with appropriate gloves.

Disposal

- Please contact Hazards and Containment Manager to arrange for disposal.

D. Emergency

- DO NOT move containers of dry picric acid.
- Under no circumstances should the container of dry picric be opened. Dry picric acid in screw threads may be detonate.
- Call Unisafe (Extn 85000) immediately.