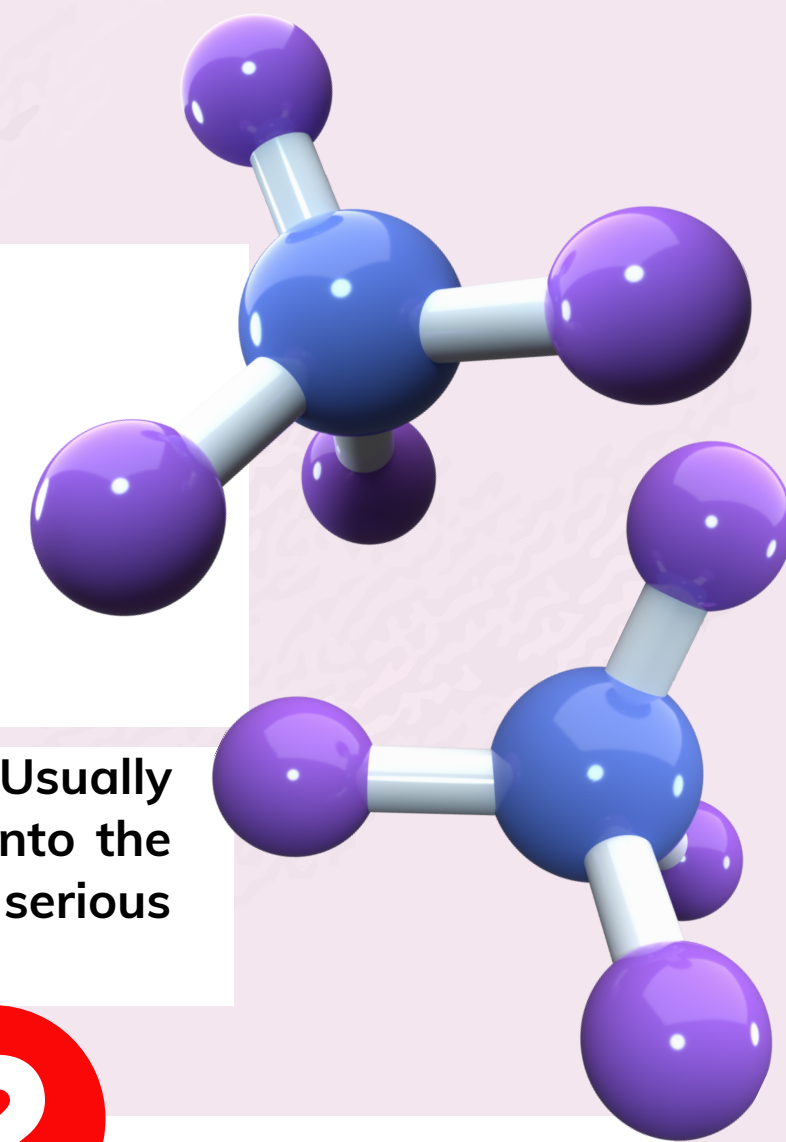


Beware of the

LEGACY CHEMICALS



Inherited chemical stocks from previous researchers/team members. Usually unused & stored for many years which can introduce higher hazards into the laboratory than the original chemical. Short list of chemicals that pose serious hazards when stored for an extended period of time:

1

PICRIC ACID

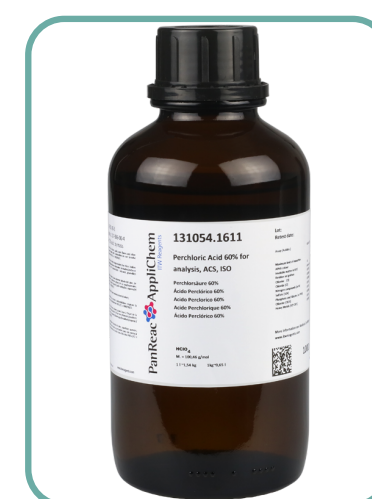


(CAS No. 88-89-1; 2,4,6-trinitrophenol, picronic acid) is a pale yellow, odorless crystal that is slightly soluble in water. When hydrated, picric acid can be handled safely, but it poses a potential **explosion hazard** when it dries.

2

PERCHLORIC ACID

Whereas 70% perchloric acid is stable, many of its salts (perchlorates) are shock-sensitive explosives. Old perchloric acid bottles may have formed crystals that are **explosive**.



3

HYDROFLUORIC ACID

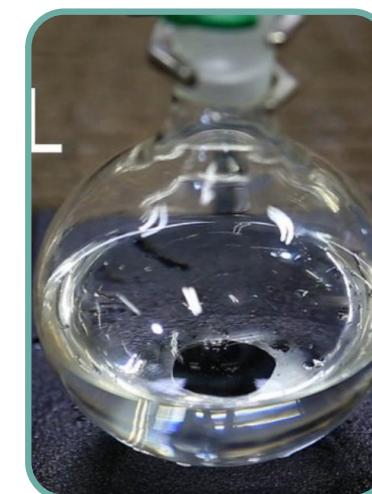


Solutions of HF are colorless, acidic and highly corrosive. It is stored in plastic bottles. The plastic material deteriorates with time and becomes brittle. HF is **highly toxic** - a minor exposure can have serious consequences like Hydrofluoric burns.

4

DIETHYL ETHER

Diethyl ether forms **explosive peroxides** over time. Bottles should be dated when received and checked for peroxide regularly. Old bottles that have not been checked may contain significant amounts of peroxides. Commonly found peroxide formers are isopropanol, isoamyl alcohol, tetrahydrofuran, and dioxane.



5

HYDRAZINE & OTHER CORROSIVES



Can cause corrosion of the container lid causing a leak that allows **toxic vapors** to escape.



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We strongly encourage all laboratory groups to inventory the chemicals in your spaces and dispose of old chemicals as well as any chemicals not in use. You can contact CMU at cmuutm@utm.my for further assistance.