

THE ACID TEST

Acids for testing precious metals

These chemicals are for trade or professional use only.

Full set of safety data sheets available (117 pages)

See overleaf for safety precautions including what to do in the case of an accident and technical information.

Keep the bottles upright, store them in their box and keep the box locked when not in use; keep them away from children; avoid extreme heat.

Always wear acid-proof gloves when handling acids.

USING THE BOTTLES

Using acids requires a steady hand and good eyesight, so if you need to find your reading glasses or a magnifier, do so before you start; also have a tissue ready before you start. *Wear acid-proof gloves.*

Plastic bottles

Have a tissue ready to catch any drops that spill. To open, push cap down *firmly* whilst unscrewing (when new, a tamper-proof seal will break), it's the same as a childproof cap on a medicine bottle. Carefully mop up, with tissue, any acid on the outside of the nozzle. Then turn the bottle upside down, watch the acid move down the nozzle (you may have to squeeze *gently*), let a spot of acid form on the outside of the nozzle and touch it onto the filed area of the metal. After each use, mop up the acid-spot on the item and mop up any acid from the outside of the nozzle. When replacing the cap, press downwards as you tighten it, otherwise it *will* leak.

Glass bottles

Have a tissue ready to mop up the spot of acid after the test. Upon removing the cap, take care not to breathe any fumes. Replace the cap when not in use, even for a few seconds, so that if you knock the bottle over it won't spill.

DISPOSAL

Plastic bottles

Go to a sink, turn on the taps. Gently squeeze any remaining into the flowing water. Then tip the end into the flowing water, squeeze, let go, clean water will be sucked into the bottle. Squeeze it out into the flowing water. Repeat this or three or four times. The bottle is now clean and can be thrown away.

Glass bottles

Go to a sink, turn on the taps. Gently tip any remaining acid into the flowing water, then very gently rinse out the bottle and the cap, taking care not to splash. The bottle is now clean and can be thrown away.

Keep the bottles upright, store them in the box and keep the box locked when not in use; keep them away from children; avoid extreme heat.

The health warnings on this page refer to exposure. "Exposure" means a chemical makes contact with your skin/eyes or gets inside your body. Avoid exposure from spillage: wear acid-proof gloves. Avoid exposure to fumes: use in a well-ventilated place.

WHITE FLUID (9ct)

Acid: nitric HNO₃ EC 231-714-2



BLUE FLUID (14-24ct)

Acid: Nitric HNO₃ EC 231-714-2
Acid: Hydrochloric HCL EC 231-595-7



AMBER FLUID (silver)

Acid: Nitric HNO₃ EC 231-714-2
Additive: Chromium trioxide CrO₃ EC 215-607-8



GREEN FLUID (white metal)

Acid: Hydrochloric HCL EC 231-595-7
Additive: Tin chloride SnCl₂ EC 215-689-5



CLEAR FLUID (8ct / zinc)

Acid: Nitric HNO₃ EC 231-714-2
Acid: Sulphuric H₂SO₄ EC 231-639-5
Additive: Silver sulphate SnCl₂ EC 215-689-5



THE ACIDS

GENERAL: use and store in a well-ventilated place away from extreme heat. If spilt on fabric or furniture soak with water (plus bicarbonate of soda if readily available). May be corrosive to metals.

MEDICAL: can cause severe skin burns / eye damage. Toxic if inhaled. If exposed or concerned, seek medical advice.

If inhaled remove to fresh air, keep comfortable for breathing, call POISON CENTRE/doctor.

If in eyes rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing and call a POISON CENTRE/doctor.

If on skin (or hair) remove contaminated clothing,¹ rinse skin with water under a tap or shower.

If swallowed call POISON CENTRE/doctor. Rinse mouth (do not induce vomiting).

THE ADDITIVES

GREEN FLUID (white metal) contains tin chloride SnCl₂ EC 231-868-0

May cause respiratory irritation; harmful if swallowed; may cause damage to organs (cardio-vascular system) through prolonged or repeated exposure.

AMBER FLUID (silver) contains chromium trioxide CrO₃. EC 215-607-8

May cause fire or explosion; strong oxidizer. Toxic if swallowed or in contact with skin.

May cause an allergic skin reaction; may cause allergy, asthma symptoms or breathing difficulties if inhaled; may cause respiratory irritation². May cause genetic defects; may cause cancer; suspected of damaging fertility. Very toxic to aquatic life with long lasting effects. Keep away from heat. Do not breathe fumes².

CLEAR FLUID (8ct/zinc alloy) contains silver sulphate AgSO₄ EC 233-653-7

Causes serious eye damage. Same advice as for acids, above.

¹ Any fabric against the skin that is soaked in acid must be removed or the acid will continue to burn through the skin. Take special care if using glass bottles, it is possible to spill the entire bottle; a plastic bottle (if knocked over) will only spill one drop from the dropper.

² Chromium trioxide is a powder and is dissolved in acid so you cannot inhale it. Also, this particular fluid does not fume so it would be difficult to "inhale". However do not deliberately sniff the amber fluid and take extra care not to spill it on your skin.