

Arsenic test paper

(= Mercuric Bromide Paper)

for the rapid determination of arsenic as AsH_3

Color reaction:

In the presence of arsine, the white test paper turns lemon-yellow to brown, according to concentration.

Safety precautions:

Arsenic test paper contains mercury(II) bromide 0.9–3.6% CAS 7789-47-1. WARNING. Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure. May cause long lasting harmful effects to aquatic life. Avoid breathing dust/vapours. Avoid release to the environment. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth. For further information ask for a safety data sheet (www.mn-net.com/MSDS).

Method of application:

The test paper must be exposed to arsine (AsH_3) vapors, deliberated with zinc and hydrochloric acid. The paper must not be dipped into the solution it works only in the gas-phase. Therefore put a 5 mL sample in a test tube, add one spoon zinc and 5 drops of hydrochloric acid 1M and hold the test paper immediately over the tube without contact to the liquid sample. Reaction time: 10 min. Shake test tube from time to time. Yellow to brown color change will indicate arsenic.

Limit of sensitivity:

0.0005 mg Arsenic (= 0.5 ppb) or 0.1 ppm (in 5 mL sample)

Interferences:

Hydrogen sulfide also produces a yellow color. The interposition of a cotton swab, impregnated with lead acetate, is suggested.