

Arsenic Limit Test Apparatus

Principle:

The arsenic limit test is based on the conversion of arsenic present in a sample into arsine gas (AsH_3) by reaction with zinc and acid. The arsine gas reacts with mercuric chloride paper to produce a yellow to brown stain. The intensity of the stain is compared with a standard to determine whether arsenic is within permissible limits.

Main Parts:

- Arsenic generator bottle
- Rubber stopper with delivery tube
- Absorber tube
- Mercuric chloride-impregnated paper
- Zinc granules

Uses:

- Detection and limit testing of arsenic impurities
- Quality control of pharmaceuticals
- Analysis of chemicals and raw materials
- Compliance with pharmacopoeial standards

Advantages:

- Sensitive method for arsenic detection
- Simple and cost-effective
- Suitable for trace-level analysis