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IS 6356 : 2001

**ANNEX E**  
[Clause 5.5 and Table 1, SI No. (iv)]  
**DETERMINATION OF ARSENIC**

**E-1 OUTLINE OF THE METHOD .**  
Arsenic present in a solution of the material is reduced to arsine, which is made to react with mercuric bromide paper. The stain produced is compared with a standard stain.

**E-2 REAGENTS**

**E-2.1 Mixed Acid** — Dilute one volume of concentrated sulphuric acid with four volumes of water. Add 10 g of sodium chloride for each 100 ml of the solution.

**E-2.2 Ferric Ammonium Sulphate Solution**  
Dissolve 64 g of ferric ammonium sulphate in water containing 10 ml of mixed acid and make up to one litre.

**E-2.3 Concentrated Hydrochloric Acid** — See IS 265.

**E-2.4 Stannous Chloride Solution** — Dissolve 80 g of stannous chloride ( $\text{SnCl}_2 \cdot 2\text{H}_2\text{O}$ ) in 100 ml of water containing 5 ml of concentrated hydrochloric acid.

**E-3 PROCEDURE**  
Carry out the test as prescribed in IS 2088, adding into the Gutzeit bottle, 2 ml of ferric ammonium sulphate solution, 0.5 ml of stannous chloride solution and 25 ml of stannous chloride solution and 25 ml of sample solution as prepared in **D-4.1**.  
For comparison, prepare a stain using 0.001 mg of arsenic trioxide.

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