

## Sodium Bicarbonate

Baking Soda

NaHCO<sub>3</sub>

Mol wt 84.01

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### DESCRIPTION

A white crystalline powder. It is stable in dry air, but slowly decomposes in moist air. Its solutions, when freshly prepared with cold water without shaking, are alkaline to litmus. The alkalinity increases as the solutions stand, are agitated, or are heated. One g dissolves in 10 ml of water. It is insoluble in alcohol.

### REQUIREMENTS

#### Identification

A 1 in 10 solution gives positive tests for *Sodium*, page 517, and for *Bicarbonate*, page 516.

**Assay** Not less than 99.0% of NaHCO<sub>3</sub> after drying.

**Ammonia** Passes test.

**Arsenic (as As)** Not more than 3 ppm.

**Heavy Metals (as Pb)** Not more than 5 ppm.

**Insoluble Substances** Passes test.

**Loss on Drying** Not more than 0.25%.

### TESTS

**Assay** Weigh accurately about 3 g, previously dried over silica gel for 4 h, dissolve it in 25 ml of water, add methyl orange TS, and titrate with 1 N sulfuric acid. Each ml of 1 N sulfuric acid is equivalent to 84.01 mg of NaHCO<sub>3</sub>.