IS 4752: 1994 Sodium Metabisulphite, Food Grade – Specification (first revision)

Sodium metabisulfite $(Na_2S_2O_5)$ is a chemical compound that is commonly used as a preservative, disinfectant, and antioxidant. It is a white, crystalline powder or granule that has a strong sulfurous odor. It dissolves in water to form an acidic solution.

Food grade sodium metabisulfite is expected to have high purity of 97-99%, low moisture content, and a consistent release of sulfur dioxide. It should be white, free-flowing, and have an acidic pH, with minimal contaminants like heavy metals and sulfates. The product should be highly soluble, stable with a long shelf life, and properly packaged to prevent moisture exposure.

BIS has developed an Indian Standard IS 4752: 1994 'Sodium Metabisulphite, Food Grade – Specification (*first revision*)', which prescribes the requirements and the method of sampling and test for sodium metabisulphite for use as a **food preservative**. This standard ensures safety of sodium metabisulphite by limiting harmful contaminants and ensuring consistent quality. IS 4752 covers the minimum **purity requirement** and identification of the product. Maximum limits of **water insoluble matter**, **thiosulphate**, **heavy metals**, iron and selenium of the product have been specified to ensure good and safe quality of the product. The **pH** of sodium metabisulfite is important because it directly affects its stability, effectiveness, and safety in various applications, IS 4752 therefore prescribes that the product shall be **acidic to litmus**.