



Specification for Sodium Hydrosulphite (Indian Standard) IS 1919: 1982

Summary on Sodium Hydrosulphite product:

Sodium Hydrosulphite ($\text{Na}_2\text{S}_2\text{O}_4$), also known as sodium dithionite, is a versatile chemical widely used as a reducing and bleaching agent in various industries, such as textiles, dyestuffs, leather, paper, pulp, and even in sugar and jaggery manufacturing. It is a white crystalline salt that emits a sulfurous odor, especially when exposed to air or moisture.

The Indian Standard, **IS 1919:1982** specifies requirements and the methods of sampling and test for Sodium Hydrosulphite. The key requirements as per the standard are Sodium Hydrosulphite content (Min.84 & 88 %), Bulk density, Zinc, Mercury and Heavy metals. It also specifies two grade, **Grade 1**, used primarily in the dyestuff industry, and **Grade 2**, used in textiles, jaggery production, and as a bleaching agent.

Sodium Hydrosulphite is soluble in water, with the formation of a highly alkaline solution and it is a relatively unstable compound and must be stored carefully to prevent it from degrading into Hydrogen sulfide (H_2S) or Sulphur dioxide (SO_2) gases. It has a faint, sulphur-like odor, especially when exposed to air or moisture.

Sodium Hydrosulphite should be handled with caution due to its potential to release toxic gases such as hydrogen sulfide (H_2S) or sulfur dioxide (SO_2). These gases can pose serious health risks, including respiratory problems if inhaled in significant quantities. Additionally, the compound is corrosive and can cause skin and eye irritation. Proper protective equipment (such as gloves and goggles) and safe storage practices are essential. It is sensitive to moisture and air, and can degrade, releasing sulfur gases, which makes proper storage in airtight containers crucial.

Sodium Hydrosulphite is a versatile and highly effective chemical used across numerous industries. However, due to its unstable nature and the potential for the release of toxic gases, proper safety protocols are essential to ensure safe handling and storage. Understanding the chemical's properties, handling requirements, and potential hazards is crucial for safely incorporating it into industrial applications. When handled correctly, it can play a key role in many processes, from textile manufacturing to food production.

