

## *Indian Standard*

# SPECIFICATION FOR SODIUM TRIPOLYPHOSPHATE, ANHYDROUS, TECHNICAL

### 0. FOREWORD

**0.1** This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 28 September 1984, after the draft finalized by the Inorganic Chemicals (Misc) Sectional Committee had been approved by the Chemical Division Council.

**0.2** Sodium phosphate, especially the polyphosphate, are chemicals of wide application. The newest member of the family of important sodium phosphates is sodium tripolyphosphate. The tripolyphosphate exhibits most of the useful properties of the other phosphates and none of their undesirable ones. It has a high sequestering action and is a good defloculant like pyrophosphate. At present, the largest use of sodium tripolyphosphate is as a builder of synthetic detergents. Most of the built detergents sold today contain sodium tripoly and/or pyrophosphate. Among other important uses of sodium tripolyphosphate are an ingredient of the formulation of boiler feed water treatment, purification of china clay, conditioning of oil drilling mud, antipith agent in paper making, textile processing, dispersant in cements, etc.

**0.3** Sodium tripolyphosphate is manufactured by neutralizing the phosphoric acid produced either by wet process or by thermal process. It is made from a mixture of one mole of monosodium orthophosphate to two moles of disodium orthophosphate, which is intimately mixed to get a good yield of the desired product. If the mixing is inadequate, combinations of pyro-, tripoly- and metaphosphates are formed.

**0.4** Currently the material in this country is being produced from phosphoric acid made by the wet process from imported rock phosphate. Keeping this in view the requirements have been laid down.

**0.5** This standard contains clause 2.4 which calls for agreement between the purchaser and the supplier.

## **IS : 6100 - 1984**

**0.6** The standard was originally published in 1971 and is revised in the light of the progress made by the industry. In this revised standard, changes have been made in the requirement for sieve analysis and bulk density. The procedure for the gravimetric method for the determination of tripolyphosphate content has been amended while the volumetric method has been deleted in this revision.

**0.7** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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### **1. SCOPE**

**1.1** This standard prescribes the requirements and the methods of sampling and test for sodium tripolyphosphate, anhydrous, technical, for use as a detergent builder, and as a deflocculant.

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