Doc: CHD 05 (23836) WC February 2024 (Superseding IS 246 : 1986)

## BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY (Not to be reproduced without permission of BIS or used as an Indian Standard)



## Draft Indian Standard SODIUM THIOSULPHATE, ANHYDROUS AND PENTAHYDRATE, PHOTOGRAPHIC GRADE— SPECIFICATION

(Third Revision of IS 2211)

(ICS 37.040.30)

Electroplating Chemicals And Photographic Materials Sectional Last Date for Comments: 8<sup>th</sup> April 2024 Committee, CHD 5

NATIONAL FOREWORD

(Formal clause to be added later)

BIS has published 2 Indian Standards on Sodium thiosulphate, photographic grade IS 246 : 1986 and IS 2211 : 1993.

IS 246 was first published in 1950 and subsequently revised in 1957, 1964, 1972 and 1986 under the title 'Specification for Sodium Thiosulphate, crystalline, photographic grade'. Sodium thiosulphate, crystalline with the formula  $Na_2S_2O_3.5H_2O$  is commonly known as hypo and is used in the photographic industry as a fixing agent to dissolve unchanged silver salts from exposed negatives. In the fourth revision of this standard, the limits for heavy metals and iron were modified.

IS 2211 was originally published in 1962 and subsequently revised in 1972 and 1993 under the title 'Anhydrous Sodium Thiosulphate, photographic grade - Specification'. Sodium thiosulfate, anhydrous is an inorganic compound with the chemical formula  $Na_2S_2O_3$  and relative molar mass 158.1. In the second revision, the requirements of pH and heavy metals were modified. Changes were also made in the methods for determination of sodium thiosulphate, pH and sulphide.

The technical committee responsible for formulation of these standards decided to revise IS 2211 by adopting ISO 10636 : 1994 'Photography - Processing chemicals - Specifications for anhydrous sodium thiosulfate and sodium thiosulfate pentahydrate' on dual number basis. This revision is being undertaken by amalgamating IS 246 and IS 2211 and will be published as third revision of IS 2211 and subsequent to

this publication IS 246 will be superseded.

ISO 10636 specifies the requirements of both grades of sodium thiosulphate i.e. anhydrous and pentahydrate. Accordingly the title of this standard is being modified to 'Sodium Thiosulphate, Anhydrous and Pentahydrate, Photographic Grade— Specification'.

The text of the ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker, while in Indian Standards the current practice is to use a point (.) as the decimal marker.

In this adopted standard, the reference appears to certain International Standards for which Indian Standards do not exist. So, the technical committee has reviewed the provisions of the following International Standards/ documents referred in this adopted standard and has decided that they are acceptable for use in conjunction with this Standard:

International Standards	Title
ISO 10349-1: 1992 <sup>1</sup>	Photography – Photographic grade chemicals - Test methods - Part 1: General.
ISO 10349-3:1992	Photography — Photographic-grade chemicals — Test methods — Part 3: Determination of matter insoluble in ammonium hydroxide solution
ISO 10349-5: 1992	Photography – Photographic grade chemicals - Test methods - Part 5: Determination of heavy metals and iron content.
ISO 10349-7:1992	Photography — Photographic-grade chemicals — Test methods — Part 7: Determination of alkalinity or acidity
ISO 10349-10:1992	Photography — Photographic-grade chemicals — Test methods — Part 10: Determination of sulfide content
NOTE: — <sup>1</sup> ISO 10349-1: 1992 has been revised as ISO 10349-1: 2002.	

The standard also makes a reference to the BIS Certification Marking of the product. Details of which are given in National Annex A.

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 : 2022 'Rules for rounding off numerical values (*Second Revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

## **National Annex A**

(National Foreword)

## A-1 BIS CERTIFICATION MARKING

The product may also be marked with the Standard Mark.

A-1.1 The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act,

2016 and the Rules and Regulations made thereunder. The details of the conditions under which the licence for use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.