

**(PREVIEW)**  
***Indian Standard***  
**SPECIFICATION FOR**  
**CAFFEINE, FOOD GRADE**

## **0. FOREWORD**

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 28 November -1986, after the draft finalized by the Food Additives Sectional Committee had been approved by the Agricultural and Food Products Division Council.

**0.2** With the increased production of processed foods, manufacturers have started adding a large number of substances, generally in small quantities, to improve the appearance, flavour, texture, or storage properties of the processed foods. As certain impurities in these substances could be harmful, it is necessary to have a strict quality control of these food additives. A series of standards is, therefore, being prepared by this Institution to cover purity and identification of these substances. These standards would help in checking purity which requires to be checked at the stage of manufacture for it is extremely difficult ( and in many cases impossible ) to detect the impurity once these substances have been added to the processed foods. Besides, these standards are intended to guide the indigenous manufacturers in making their product conform to specifications that are accepted by scientists, health authorities and international bodies.

**0.3** Caffeine is used as a central nervous stimulant in cola-type beverages.

### **0.4 Chemical Characteristics**

**0.4.1 Chemical Name** – 1,3,7-trimethylxanthine.

**0.4.2 Empirical Formula** –  $C_8H_{10}N_4O_2$

**0.4.3 Molecular Weight** - 194.19.

**0.4.4 Structural Formula**

**0.5** In the preparation of this standard considerable assistance has been derived from Food Chemical Codex, Pub. National Academy of Sciences and National Research Council, Washington, DC, USA.

**0.6** 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.

## **1. SCOPE**

**1.1** This standard prescribes the requirements and the methods of sampling and test for caffeine, food grade.