

ICS 77.120.99

CCS H 66



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 1475-2022

Replacing GB/T 1475-2005

Gallium

镓

Issued on: March 9, 2022

Implemented on: October 1, 2022

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

- 2 Normative references
- 3 Terms and Definitions
- 4 Product categories
- 5 Requirements
- 5.1 Chemical composition

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" drafted. This document replaces GB/T 1475-2005 "Gallium". Compared with GB/T 1475-2005, except for structural adjustments and editorial changes, the main technical changes are as follows:

- a) The requirements for three impurity elements of mercury, chromium and cadmium are added to the industrial gallium Ga3N (see 5.1.1, 3.2.1 of the 2005 edition);
- b) For industrial gallium Ga4N, the requirements for 4 impurity elements of silicon, mercury, chromium and cadmium and the content index requirements for 13 impurity elements are added (see 5.1.1, 3.2.1 of the 2005 version);
- c) For industrial gallium Ga5N, the requirements for 5 impurity elements of silicon, mercury, chromium, cadmium and magnesium and the content index requirements for 14 impurity elements are added (see 5.1.1, 3.2.1 of the 2005 edition);
- d) High-purity gallium Ga6N adds four impurity elements requirements of mercury, calcium, sodium and tin (see 5.1.2, 3.2.2 of the 2005 edition);
- e) Changed the requirements for the content of copper, lead, zinc, iron, nickel, silicon, magnesium, chromium, cobalt, and manganese in high-purity gallium Ga6N (see 5.1.2, 2005 version 3.2.2);
- f) Changed the regulations on batch weight in group batches (see 7.2,

5.2 of the.2005 edition);

g) The provisions on sampling and sample preparation have been changed (see 7.4,

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 8170 Numerical Rounding Rules and Representation and Judgment of Limit Values
 YS/T 473 Industrial Gallium Chemical Analysis Method Determination of Impurity Elements Inductively Coupled Plasma Mass Spectrometry
 YS/T 474 High-purity Gallium Chemical Analysis Method Determination of Trace Elements Inductively Coupled Plasma Mass Spectrometry
 YS/T 666 Industrial Gallium Chemical Analysis Method Determination of Impurity Elements Inductively Coupled Plasma Atomic Emission Spectrometry
 YS/T 872 Industrial Gallium Chemical Analysis Method Determination of Mercury Content Atomic Fluorescence Spectrometry

3 Terms and Definitions

There are no terms and definitions that need to be defined in this document.

4 Product categories

Product classification is shown in Table 1. Table

1 Product classification Grade grade Ga content %,not less than Industrial Gallium Ga3N

99.999 High purity gallium Ga6N 99.9999

5.1 Chemical composition

5.1.1 The chemical composition of industrial gallium shall meet the requirements in Table 2.