

ICS 77.150.99

CCS H 64



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

GB/T 44331-2024

High purity lithium borate

高纯硼酸锂

Issued on: August 23, 2024

Implemented on: March 1, 2025

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

Table of Contents

Preface	III
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Classification and labeling	1
5 Technical requirements	2
6 Test methods	3
7 Inspection Rules	3
8 Marking, packaging, transportation, storage and accompanying documents	4
9 Order Contents	5
Appendix A (Normative) Lithium Borate Types	6
Appendix B (Normative) Determination of lithium-boron content in lithium borate mixed flux	8
Appendix C (Normative) Determination of silicon content in high purity lithium borate	11
Appendix D (Normative) Determination of phosphorus content in high purity lithium borate	13
Appendix E (Normative) Determination of Arsenic Content in High-Purity Lithium Borate	15
Appendix F (Normative) Determination of Sodium and Potassium Content in High-Purity Lithium Borate	16
Appendix G (Normative) Determination of calcium, magnesium, lead, copper, iron and aluminum content in high-purity lithium borate	17
Appendix H (Normative) Determination of loss on ignition in high purity lithium borate	19

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 for standardization documents" Drafting is required.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by China Nonferrous Metals Industry Association.

This document is under the jurisdiction of the National Technical Committee on

Standardization of Nonferrous Metals (SAC/TC 243).

This document was drafted by: Chengdu Kaifei High Energy Chemical Industry Co., Ltd., Jiangxi Ganfeng Lithium Industry Group Co., Ltd., Nonferrous Metals Technology Technical Economics Research Institute Co., Ltd. and Yichun Yinli New Energy Co., Ltd.

The main drafters of this document are: Cai Rongfu, Ban Wenjun, Wu Guanghua, Li Yali, Zhang Qiang, Li Qiang, Zhang Jiangfeng, Deng Hongyun, Meng Qiang, Lu Yinjiang. High purity lithium borate

1 Scope

This document specifies the classification and marking, technical requirements, test methods, inspection rules, marking, packaging, transportation, storage and other aspects of high-purity lithium borate.

Storage, accompanying documents and order form contents.

This document applies to X-ray fluorescence spectrometry (XRF), flame atomic absorption spectrometry (AAS), inductively coupled plasma High purity lithium borate used as flux in instrumental analysis such as optical emission spectrometry (ICP).

2 Normative references

GB/T 191-2008

GB/T 1479.1-2011

GB/T 6678-2003

GB/T 6682

GB/T 8170

GB/T 11064.4-2013

GB/T 11064.8-2013

GB/T 12805

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 lithium borate mixed flux

A mixture of high purity lithium tetraborate and high purity lithium metaborate of the same density specification.

4.1 Classification

4.1.1 High-purity lithium borate is divided into three types according to its chemical composition. high-purity lithium tetraborate, high-purity lithium metaborate, and lithium borate mixed flux.

4.1.2 High-purity lithium borate is divided into two specifications according to bulk density. low density and high density.