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

**GB/T 32375-2015**

Replacing GB/T 32375-2015

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**Safety technical specification for production of calcium carbide**

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## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1.Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 32375-2015 "Safety Technical Regulations for Calcium Carbide Production". Compared with GB/T 32375-2015, the main differences are in the structural design.

Aside from integration and editorial changes, the main technical changes are as follows.

a) The scope of the document has been changed (see Chapter 1, Chapter 1 of the.2015 edition);

b) The terms "calcium carbide furnace" and "closed furnace" and their definitions have been removed (see 3.1 and 3.2 in the.2015 edition);

c) Added the terms "electrode cylinder", "calcium carbide cooling plant", "calcium carbide warehouse", and "indirect closed-loop cooling water system" and their definitions (see section [number]).

Chapter 3);

d) Added basic safety management, plant site selection and layout, buildings (structures),

pipng and equipment, electrical instrumentation and intelligent management (see 4.1~4.6);

e) The requirements for the unloading robot have been changed (see 4.5.2, 4.5.3, 5.6.1~5.6.3, and 4.8.13 in the.2015 version);

f) The requirements for raw material preparation have been changed (see 5.2, 4.1-4.3 of the.2015 edition);

g) The requirements for electrode paste application and electrode cylinder connection have been changed (see 5.3, 4.4.1~4.4.5, 4.12.1~4.12.10 in the.2015 version);

h) The requirements for operating the calcium carbide furnace have been changed (see 5.4, 4.5.1~4.6.7, 4.6.1~4.6.16 in the.2015 version);

i) The requirement for an open furnace has been removed (see 4.5.2 and 4.5.3 in the.2015 version);

j) The requirements for calcium carbide furnace gas purification have been revised (see 5.5, 4.7.1~4.7.8 of the.2015 edition);

k) The requirement for driving operation has been removed (see 4.10 in the.2015 version);

l) The requirements for calcium carbide crushing have been changed (see 5.7, 4.11.1 in the.2015 version);

m) The requirements for circulating water have been changed (see 5.8, 4.13.1 and 4.13.2 in the.2015 edition);

(n) The requirements for calcium carbide storage have been changed (see Chapter 6, 4.11.6-4.11.12 of the.2015 edition);

o) The requirements for handling abnormal operating conditions have been changed (see Chapter 7, 4.6.4~4.6.15 of the.2015 edition);

p) The emergency response requirements have been changed (see Chapter 8, 4.16.7-4.16.10 of the.2015 edition);

q) Added verification methods (see 4.7, 5.9, 6.4, 7.9, 8.7).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the Ministry of Emergency Management of the People's Republic of China.

The release history of this document and the document it replaces is as follows.

---First published in.2015 as GB/T 32375-2015;

---This is the first revision.

## Safety Technical Specifications for Calcium Carbide Production

### 1 Scope

This document specifies the basic requirements for calcium carbide production enterprises, as well as the requirements for production safety, storage safety, handling of abnormal operating conditions, and emergency response.

The corresponding verification methods are described.

This document applies to the production, storage, handling of abnormal operating conditions, and emergency response of calcium carbide production enterprises.

### 2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 567.2 Rupture disc safety devices - Part 2.Application, selection and installation

GB/T 4208 Degrees of protection provided by enclosures (IP code)

GB 12158 General requirements for the prevention of electrostatic discharge accidents

GB 15603 General Rules for Storage of Hazardous Chemicals in Warehouses

GB 17681 Technical Specification for Safety Monitoring of Major Hazard Installations of Hazardous Chemicals

GB 21148 Safety shoes for foot protection

GB/T 29639 Guidelines for the Preparation of Emergency Response Plans for Production Safety Accidents in Production and Business Units

GB 30077 Requirements for Emergency Rescue Supplies in Hazardous Chemical Units

GB 30871 Safety Specifications for Special Operations in Hazardous Chemical Enterprises

GB 36894 Risk Baseline for Hazardous Chemical Production and Storage Facilities

GB/T 37243 Method for determining the external safety protection distance of hazardous chemical production facilities and storage facilities

GB 38306 Hand protection gloves against heat injury

GB 38453 Protective Clothing and Heat-Insulating Clothing

GB 45673 General Specifications for Safety Production Standardization in Hazardous Chemical Enterprises

GB 50016 Code for Fire Protection Design of Buildings

GB 50058 Design Code for Electrical Installations in Explosive Atmospheres

GB 50160 Fire Protection Design Standard for Petrochemical Enterprises

GB 50187 Standard for General Layout Design of Industrial Enterprises

GB 50201 Flood Control Standard

GB 50489 General Layout and Transportation Design Specifications for Chemical Enterprises

GB/T 50493 Design Standard for Detection and Alarm Systems of Combustible and Toxic Gases in the Petrochemical Industry

GB 50648 Design Code for Circulating Cooling Water Systems in Chemical Industries

GB 51066 Safety Technical Specification for Dry Gas Holders in Industrial Enterprises

GB 55037 General Code for Fire Protection of Buildings

AQ3026 Safety Specifications for Equipment Maintenance Operations in Chemical Production Units

YB/T 5215 Electrode Paste