

HG

CHEMICAL INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

HG/T 5157-2017

Diethyl carbonate for industrial use

工业用碳酸二乙酯

(English Translation)

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1 Scope

This standard specifies the requirements, test methods, inspection rules, marking, packaging, transportation and storage as well as safety of diethyl carbonate for industrial use.

This standard is applicable to diethyl carbonate for industrial use produced from dimethyl carbonate and ethanol.

The electronic grade, high-purity grade and guaranteed grade products in this standard are mainly used for lithium battery electrolytes, and the industrial grade products are mainly used for industrial organic synthesis and solvents.

Molecular formula: $C_5H_{10}O_3$

Structural formula:

Relative molecular mass: 118.13 (as per the international relative atomic mass in 2011)

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB 190 Packing symbol of dangerous goods

GB 191 Packaging - Pictorial marking for handling of goods

GB/T 601 Chemical reagent - Preparations of standard volumetric solutions

GB/T 602 Chemical reagent - Preparations of standard solutions for impurity

GB/T 603 Chemical reagent - Preparations of reagent solutions for use in test methods

GB/T 605 Chemical reagent - General method for the measurement of colour

GB/T 6324.8 Test methods of organic chemical products - Part 8: Determination of water of liquid products - Carl-fischer coulometric method

GB/T 6678 General principles for sampling chemical products

GB/T 6680 General rules for sampling liquid chemical products

GB/T 6682 Water for analytical laboratory use - Specification and test methods

GB/T 8170 Rules of rounding off for numerical values & expression and judgment of limiting values

GB/T 9722 Chemical reagent - General rules for the gas chromatography

GB/T 23942-2009 Chemical reagents - General rules for inductively coupled plasma atomic emission spectrometry

GB 30000.7-2013 Rules for classification and labeling of chemicals - Part 7: Flammable liquids

3.1 Appearance

Colorless and transparent liquid without visible impurities.

3.2 Technical requirements

Diethyl carbonate for industrial use shall meet the technical requirements shown in Table 1.

Table 1 Technical requirements