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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 17529.1-2023

Replacing GB/T 17529.1-2008

Acrylic acid and acrylates for industrial use - Part 1: Acrylic acid for industrial use

工业用丙烯酸及酯 第1部分：工业用丙烯酸

Issued on: November 27, 2023 **Implemented on: June 1, 2024**

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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 is Part 1 of GB/T 17529 "Acrylic acids and esters for industrial use": GB/T 17529 has published the following parts:

---Part 1: Acrylic acid for industrial use;

---Part 2: Methyl acrylate for industrial use;

---Part 3: Ethyl acrylate for industrial use;

---Part 4: n-Butyl acrylate for industrial use;

---Part 5: 2-ethylhexyl acrylate for industrial use: This document replaces GB/T 17529:1-2008 "Acrylic acid and esters for industrial use Part 1: Acrylic acid for industrial use" and is consistent with Compared with GB/T 17529:1-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) The acrylic acid content and moisture index requirements of refined acrylic acid type have been changed (see Table 1, Table 1 of the:2008 version);

b) Canceled the classification of acrylic products, deleted the first-class product index, and changed the acrylic acid content index requirements (see Table 1,:2008 version of Table 1);

c) Added the technical requirements for the acrylic dimer project "to be agreed between the supplier and the buyer" (see Table 1);

d) Added test methods for appearance (see 6:1);

e) Changed the test methods for determination of acrylic acid and total aldehyde content (see 6:2, 6:3 of the:2008 edition);

f) The requirement for sample weighing in the Karl Fischer method of moisture determination is deleted (see 6:5:1 of the:2008 edition);

g) The determination method of colorimetry has been changed (see 6:3, 6:4 of the:2008

edition): Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents: This document is proposed by China Petroleum and Chemical Industry Federation: This document is under the jurisdiction of the National Chemical Standardization Technical Committee (SAC/TC63): This document was drafted by: Satellite Chemical Co:, Ltd:, Wanhua Chemical Group Co:, Ltd:, Sinopec (Beijing) Chemical Research Institute Co:, Ltd:, Shanghai Huayi New Materials Co:, Ltd:, Pinghu Petrochemical Co:, Ltd:, Jiangsu Sandie Chemical Co:, Ltd:, Shandong Kaitai Petrochemical Co:, Ltd: Co:, Ltd:, Fujian Binhai Chemical Co:, Ltd:, Shandong Hengzheng New Materials Co:, Ltd:, Yangzi Petrochemical-BASF Co:, Ltd: The main drafters of this document: Gao Jun, Zhang Zheng, Rosa, Li Jun, Yang Weidong, Ma Yan, Zhang Aidong, Cui Yaosen, Wang Zhigang, Sun Zhijun, Zhu Fan, Yang Guangyou, Li Naiwei, Qian Guifang: The previous versions of this document and the documents it replaces are as follows:

---First published in:1998 as GB/T 17529:1-1998;

1 Scope

GB/T 17529.1-2023 is the Chinese national standard on acrylic acid and acrylates for industrial use - part 1: acrylic acid for industrial use, in the field of chemical technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 27 November 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2024. Classification: ICS 71.080.40, CCS G17. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the product classification, requirements, test methods, inspection rules and marking, packaging, transportation and storage of industrial acrylic acid: This document applies to acrylic acid produced by the catalytic oxidation of propylene:

Note: The molecular formula of acrylic acid is C3H4O2, the structural formula is as follows, and the relative molecular mass is 72:06 (according to the 2022 international relative atomic mass):

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this

document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB 190 Dangerous goods packaging markings

GB/T 191 Packaging, storage and transportation pictorial mark

GB/T 2366 Determination of water content in chemical products by gas chromatography

GB/T 6283 Determination of moisture content in chemical products Karl Fischer method (general method) GB/T 6324:

6 Test methods for organic chemical products Part 6: Determination of liquid colorimetric method Tristimulus value colorimetry

GB/T 6678 General principles for sampling of chemical products

GB/T 6680 General rules for sampling of liquid chemical products

GB/T 8170 Numerical rounding rules and expression and determination of limit values

GB/T 9722 General rules for gas chromatography with chemical reagents GB/T 17530:

3 Determination of color of industrial acrylic acid and esters GB/T 17530:

5 Determination of polymerization inhibitors in industrial acrylic acids and esters

3 Terms and definitions

There are no terms or definitions to be defined in this document:

4 Product categories

Industrial acrylic is divided into refined acrylic type and acrylic type according to its usage: Both refined acrylic products and acrylic products can be used to produce