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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 26527-2024

Silicone defoaming agent

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Standardization Administration of the PRC

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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: This document replaces GB/T 26527-2011 "Silicone Defoamers": Compared with GB/T 26527-2011, except for structural adjustment and editing, In addition to the changes in performance, the main technical changes are as follows:

--- Added a chapter on terms and definitions (see Chapter 3);

--- Added a detailed explanation in the classification chapter (see Chapter 4);

--- Changed some contents in the technical requirements (see Chapter 5, Chapter 4 of the:2011 edition);

--- Added technical requirements for modified silicone defoamers (see 5:2);

--- Changed the name of the defoaming performance (defoaming time) project and the reagents used (see 6:5, 6:5:1, 5:5,:2011 edition 5:5:1):

--- Added the test method for defoaming performance (vertical oscillation method) (see 6:6);

--- Added the test method for defoaming performance (high-speed dispersion method) (see 6:7): 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 the China Petroleum and Chemical Industry Federation: This document is provided by the Chemical Additives Subcommittee of the National Technical Committee for Standardization of Rubber and Rubber Products (SAC/TC35/SC12) Centralized: This document was drafted by: Jiangsu Sixin Technology Application Research Institute Co:, Ltd:, Foshan Nanhai Datian Chemical Co:, Ltd:, Jiangsu Sai Oushin-Etsu Defoamer Co:, Ltd:, Shijiazhuang Novit Trading Co:, Ltd:, Shandong Dayi Chemical Co:, Ltd:, Dow (Shanghai) Investment Co:, Ltd: Hangzhou Chongyao Technology Development Co:, Ltd:, Shenzhen Dianshiyuan Water Treatment Technology Co:, Ltd:, Yangzhou Sixin New Materials Technology Co:, Ltd:, Beilongsheng Sihai New Materials Co:, Ltd:, Yantai Hengxin Chemical Technology Co:, Ltd:, Fujian Xister Environmental

Protection Materials Technology Co:, Ltd: Co:, Ltd:, Huzhou Lutian New Materials Co:, Ltd:, Huangshan Qiangli Chemical Co:, Ltd:, Youmei Special (Beijing) Environmental Materials Technology Co:, Ltd:, Shanxi Province Chemical Research Institute (Ltd:): The main drafters of this document are: Huang Wei, Cao Tian, Li Yue, Yu Zhizhong, Wang Yanzhong, Yang Baizhong, Wan Jianbo, Huang Yunpeng, Cui Daoquan, Jiang Xiaoniu, Shi Zongwu, You Jiade, Wang Xuecheng, Zhang Yu, Yu Jinlong, Chen Lei, Ye Guanghua, and Zhang Jiansen: The previous versions of this document and the documents it replaces are as follows:

---First published in:2011 as GB/T 26527-2011;

---This is the first revision: Silicone defoamer Warning

---People who use this document should have practical experience in formal laboratory work: This document does not address all possible safety issues: The user is responsible for taking appropriate safety and health measures and ensuring compliance with the conditions stipulated in relevant national laws and regulations:

1 Scope

GB/T 26527-2024 is the Chinese standard for silicone defoamers, the emulsions and compounds added in small quantities to kill foam in fermentation, papermaking, coatings, wastewater treatment, textile processing and food manufacture. They are a difficult product to specify because the property that is bought, the ability to knock down foam quickly and to keep it down, is a performance in a particular system rather than a composition, and because the same silicone that kills foam becomes a defect if it is carried into a coating or a paper surface. The standard sets the classification and the requirements: the appearance, the active silicone content, the density, the viscosity, the pH, the stability of the emulsion in storage and to dilution, the defoaming and antifoaming performance measured by a defined procedure, and the limits relevant to the intended application; it then gives the test methods, the inspection rules and the marking, packaging, transport and storage. It takes effect on 1 November 2024.

This document defines the terms and definitions of organosilicon defoamers, and specifies the classification, technical requirements, inspection rules, and standards of organosilicon defoamers: It also describes the labeling, packaging, transportation and storage of the product and the corresponding test methods: This document is applicable to silicone defoamers made with polyorganosiloxane or modified polyorganosiloxane as the active body: This document is not applicable to silicone defoamers used in the food and pharmaceutical industries:

2 Normative references

The contents of the following documents constitute the essential clauses of this document

through normative references in this document: For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document:

GB/T 191-2008 Pictorial markings for packaging, storage and transportation

GB/T 6284 General method for determination of moisture in chemical products - Loss on drying method

GB/T 6678 General Principles for Sampling of Chemical Products

GB/T 6682-2008 Specifications and test methods for water used in analytical laboratories

GB/T 8170-2008 Rules for rounding off values and methods for expressing and determining limit values

GB/T 12579-2002 Determination of foam characteristics of lubricating oils

JJF1070 Rules for the measurement and inspection of the net content of quantitatively packaged goods

3 Terms and definitions

The following terms and definitions apply to this document: 3:

1 An organosilicon defoamer made of polyorganosiloxane as the active main body and other auxiliary agents: 3:

2 The organosilicon defoamer is prepared by modifying polysiloxane with polyether and/or alkyl and adding other auxiliary agents:

4 Categories

Silicone defoamers are divided into three categories according to the form of preparation: bulk type, emulsion type, and solid type (organic carrier type, inorganic carrier type):

a) Bulk type: It is mainly composed of organic silicon defoaming active ingredients, which are dispersible in the water phase system and do not contain water:

b) Emulsion type: A water-in-oil emulsion defoamer that is dispersible in an aqueous system and is made by emulsifying the silicone defoaming active ingredient: