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

GB 34462-2017

Feed additive - Choline chloride

饲料添加剂 氯化胆碱

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Quarantine;
Standardization Administration of the PRC**

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Foreword

The first chapter of this standard, Chapter 3 and Chapter 5 is mandatory, the rest are recommended. This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed and managed by the National Feed Industry Standardization Technical Committee (SAC/TC76). This standard was drafted unit. Shanghai Veterinary Drug Feed Inspection Institute, Shandong Institute of Chemical Industry, Enbei Group Co., Ltd.. The main drafters of this standard. Huang Shixin, Cao Ying, Hua Yin Hui, Min Yu-ting, Yu Peng-ling, Hao Changming, Qiu Juan, Zhu Cuiyun, Zhang Ruirui, Lu Chun. Feed additive choline chloride

1 Scope

China's mandatory standard for choline chloride used as a feed additive - one of the highest-volume additives in animal nutrition, added to poultry and pig feed because the animal cannot synthesise enough choline for the growth rate modern production asks of it, and without it develops fatty liver and, in birds, leg deformity. It specifies the requirements, the test methods, the inspection rules and the labelling, packaging, transport, storage and shelf life of feed additive choline chloride. The requirements cover the assay - the choline chloride content, which is what the mill is buying and formulating on - together with the appearance, the moisture, the pH, the loss on drying, the residue on ignition and the particle size, and then the impurity limits: the heavy metals, arsenic and lead among them, and the trimethylamine that is both a decomposition product and the source of the characteristic smell. Two properties peculiar to this substance shape the rest of the document. Choline chloride is strongly hygroscopic: it draws water out of the air, cakes, and in doing so both loses assay and damages the vitamins stored beside it, which is why the moisture limit, the packaging and the shelf life are treated as one requirement rather than three. And it is supplied both as a liquid and adsorbed onto a carrier such as silica or maize cob, which the standard distinguishes, because the same nominal product on two carriers behaves differently in a mixer and in storage. The feed hygiene limits of GB 13078 apply throughout. Issued on 14 October 2017 and in force since 1 May 2018.

This standard specifies the requirements of feed additive choline chloride, test methods,

inspection rules and labeling, packaging, transportation, storage and insurance Quality of life. This standard applies to trimethylamine hydrochloride solution and ethylene oxide generated by the reaction of choline chloride and choline chloride agent for the original Choline chloride powder prepared by adding the carrier material. Carrier species include silica, plant-derived vectors and plant-derived vectors as the main addition Anti-caking agent mixed carrier; carrier and anti-caking agent should be consistent with the "feed ingredients directory" "Feed Additives Catalog" and "feed hygiene standards Accurate" provisions. Chemical name 2-hydroxyethyl trimethyl ammonium chloride Structure. Molecular formula $C_5H_{14}NClO$ Relative molecular mass 139.63 (By international relative atomic mass in 2007)

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 601 chemical reagent standard titration solution preparation

GB/T 602 chemical reagent impurity standard solution preparation

GB/T 603 chemical reagent test methods used in the preparation of preparations and products

GB/T 6682 analytical laboratory water specifications and test methods

GB/T 9724 chemical reagent pH measurement General GB 10648 feed label

GB/T 13079 Determination of total arsenic in feed

GB/T 14699.1 feed sampling

3 Requirements

3.1 Appearance and traits Chlorinated choline chloride agent is a colorless and transparent viscous liquid, with a specific odor. Choline chloride powders are white (carrier silica) or tawny dry fluid powders or granules, hygroscopic, slightly specific Stink.

3.2 Specifications Should comply with the provisions of Table 1.