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

GB 26402-2011

**National food safety standards of food additive potassium
iodate**

食品添加剂 碘酸钾

(English Translation)

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1 Scope

This standard is suitable for iodine and potassium chlorate as raw materials for chemical synthesis, with potassium hydroxide and intermediate products potassium hydrogen iodide, the cooling knot Crystal, filter, dry the prepared food additive potassium iodate.

2.1 Molecular formula

KIO₃

2.3 Relative molecular mass

214.00 (according to 2007 International Relative Atomic Quality)

3 Technical requirements

3.1

sensory requirements. should be consistent with the provisions of Table 1.

Table 1 sensory requirements

The project requires a test method Colorless or white color Taste, smell odorless, taste slightly astringent Organizational state Crystallization or powder Take the sample 2g placed in the surface dish, used in natural light Visual method to observe the appearance of the form, the use of nasal sniffing method Check the smell, taste its taste

3.2

Physical and chemical indicators. should be consistent with the provisions of Table 2.

Table 2 Physical and chemical indicators

Item Index Test Method pH (5% potassium iodate solution) 5 ~ 8 GB/T 9724 Chlorate (in terms of ClO₃)/(mg/kg) ≤ 100 GB 1258

Table 2 (continued)

Item Index Test Method the identification test was carried out by examining A.2 in Appendix A.

Iodide (in I)/(mg/kg) ≤ 20 Appendix A A.3 Dry reduction, w /% ≤ 0.5 Appendix A A.4 Heavy metals (Pb)/(mg/kg) ≤ 4 Appendix A A.5 Arsenic (As)/(mg/kg) ≤ 3 Appendix A A.6 Sulfate (in SO₄)/(mg/kg) ≤ 50 Appendix A A.7 Potassium iodate (KIO₃) (on a dry basis), w /% ≥ 99.0 Appendix A A.8 Appendix A Testing method A.1 General provisions Unless otherwise stated, only the reagents identified as analytical reagents and the water specified in GB/T 6682-2008 are used in the analysis. Analysis center Standard solution, preparation and products for the determination of impurities, standard GB/T 601, GB/T 602, GB/T 603. The solution used in this test does not specify what kind of solvent preparation, refers to the aqueous solution.

A.2 Identification test A.2.1 Identification of iodate Take the sample about 20mg, add water, add 5mL, add sulfur dioxide saturated solution 1 drop, shake, add a few drops of starch indicator, that was significantly blue.

A.2.2 Identification of potassium salts Take platinum wire moist with hydrochloric acid, dipped in the sample, burning in a colorless flame, the flame that is purple (containing a small amount of sodium salt samples, Blue glass observation). At the same time take the sample heating incandescent to remove the miscellaneous ammonium salt, put cold after the addition of water, plus 0.1% sodium tetraphenylborate dissolved Liquid and acetic acid, that is, to generate white precipitate.

A.3 Determination of iodide Take the sample 1g, add 10mL of water dissolved, add dilute sulfuric acid 1mL and starch indicator solution 1 drop, not blue.

A.4 Determination of dry reduction Take the sample mixed evenly (such as the larger crystal, should be quickly mashed to make 2mm below the small particles), take about 1g sample, placed in the dry Dry to constant weight of the container in the precision weighing, drying at 105 °C 4h to constant weight. The weight loss of the sample was calculated from the weight loss and the sample size.

A.5 Determination of heavy metals (Pb) Take the sample 2.0g diluted with water, add acetic acid buffer (pH3.5), in accordance with the "People's Republic of China Pharmacopoeia" two (2010 version) attached Recorded VIII H first method "test.

A.6 Determination of arsenic Take A.5 the remaining sample solution 5mL, diluted with water to 30mL, take 20mL, add water to 23mL, add hydrochloric acid 5mL, according to GB/T 5009.76 Determination of arsenic content.

A.7 Determination of Sulfate According to the "People's Republic of China Pharmacopoeia" two (2010 version) potassium iodate in the determination of sulfate method.

Determination of potassium iodide (on a dry basis) Accurately weighed the sample 0.8g (accurate to 0.0001g), set 250mL volumetric flask, add water and dilute to the mark, shake; precision Take 25.0mL, set iodine bottle, add potassium iodide 2.0g and dilute hydrochloric acid 10mL, dense plug, shake, in the dark place for 5min, add water 100mL, with sodium thiosulfate titration solution (0.1mol/L) titration, to near the end, add starch indicator solution 2.0mL, continue to titration to blue disappear, and the results of the titration are corrected with blank test. Each 1 mL of sodium thiosulfate titration solution (0.1 mol/L) corresponds to 3.567 mg of KIO₃.