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

GB 16629-2008

Solvent for vegetable oils extraction

植物油抽提溶剂

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Foreword

This standard Chapters 3 and 4 are mandatory, others are recommended. This standard replaces GB 16629-1996 "No. 6 extraction solvent oil." This standard compared with GB 16629-1996 main changes are as follows:

- Standard name to "vegetable oil extraction solvent";
- Boiling ranges from the 60 °C ~ 90 °C (98% distillation temperature) to 61 °C ~ 76 °C (dry point);
- Aromatics content of not more than 1.0% to the benzene content of not more than 0.1%;
- By the bromine index of not more than 1000 to no greater than 100;
- From the non-volatile matter of not more than 3mg/100mL to not more than 1.0mg/100mL;
- By the sulfur content of not more than 0.012% to not more than 0.0005%. The standard transitional period of one year after the date of implementation of this standard one year, GB 16629-1996 "No. 6 extraction solvent oil" abolished. This standard by the National Standardization Technical Committee on products and lubricant oil (SAC/TC280) proposed. The standard by the China Petroleum and Chemical Corporation. This standard was drafted. China Research Institute of Petroleum Corp. Petrochemical, Qingdao Huatian suppliers solvent oil companies, in State Petroleum and Chemical Corporation Jinling Branch. Drafters of this standard. Li dragon, even the Ming and Zhang Wenliang, Zhu Xining. This standard was first published in 1996, this is the first revision. Vegetable oil extraction solvent

1 Scope

China's mandatory national standard for the solvent used in vegetable oil extraction. Almost all the world's soybean, rapeseed and sunflower oil is extracted with hexane: the flaked seed is washed with the solvent, which dissolves the oil and is then evaporated off and recovered. That makes the solvent a food processing aid present at the start of the chain

and, in trace amounts, at the end of it - which is the first reason for a standard. The second is the plant itself: a hexane extraction unit is one of the largest flammable vapour installations in the food industry, and the solvent's volatility and low flash point are why. So the specification covers the distillation range and composition that determine how cleanly the solvent evaporates and is recovered, the benzene and aromatic content, which must be minimal because those do not belong anywhere near food, and the residue on evaporation.

This standard specifies the petroleum straight-run distillates, restructuring raffinate oil or condensate fraction refined vegetable oil by solvent extraction requirements and Test methods, inspection rules, marking, packaging, transportation, storage and delivery acceptance. This standard is applicable to their products mainly edible oil extraction.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 1884 crude oil and liquid petroleum products - Laboratory determination of density (density meter method) (GB/T 1884-2000, eqv ISO 3675.1998)

GB/T 1885 Petroleum Measurement Tables (GB/T 1885-1998, eqv ISO 91-2.1991)

GB/T 3209 benzene products Determination of evaporation residues

GB/T 3555 Petroleum products - Determination of Saybolt color (Saybolt colorimeter method)

GB/T 4756 petroleum liquids hand sampling method (GB/T 4756-1998, eqv ISO 3170. 1988)

GB/T 5096 petroleum products copper corrosion test

GB/T 6536 Petroleum products - Determination of distillation

GB/T 11136 Petroleum hydrocarbon bromine index assay (potentiometric titration)

GB/T 17474 hydrocarbon solvent benzene content assay (GC) SH0164 petroleum product packaging, storage and delivery acceptance rules SH/T 0253 light petroleum products - Determination of total sulfur (power law) SH/T 0604 crude oil and petroleum products densitometry (U-shaped vibrating tube method) (SH/T 0604-2000, eqv

ISO 12185. 1996) SH/T 0689 and light hydrocarbon fuel and other oil products - Determination of total sulfur (UV fluorescence)

3 Requirements and test methods

Technical requirements and test methods for vegetable oil extraction solvent shown in Table 1.

4 Test rules

4.1 factory inspection All products manufactured according to quality indicators specified in Table 1 were tested.

4.2 Batch rules This product is a one-pot batch.

4.3 Sampling Conducted in accordance with GB/T 4756's. 3L sample taken as a test sample and stay with.

4.4 determine the rules Results factory inspection of all meet the requirements of Table 1, it is judged to be acceptable.

4.5 reinspection rules If the factory does not meet the test results in Table 1, when the technical indicators, according to the provisions of GB/T 4756 is re-extracted samples were re-double the amount Inspection, review the results, such as when there are not, then this batch of products to be ineligible.

5 Signs, packaging, transportation, storage and delivery acceptance Product labeling, packaging, transportation, storage and delivery acceptance SH0164 performed. Compliance with this standard product in the transport, storage process You must use a dedicated pipeline, container and pump.

1 vegetable oil extraction solvent technical requirements and test methods for tables

Item Index Test Method Distillation range. Initial boiling point/°C no less than Dry point/°C no higher than GB/T 6536 Benzene content (mass fraction) /% not more than

0.1 GB/T 17474 Density (20 °C) / (kg/m³) 655 ~ 680 GB/T 1884 and GB/T 1885 SH/T 0604a Bromine index of not more than 100 GB/T 11136 Color/number is not less than +30 GB/T 3555 Nonvolatile/(mg/100mL) is not more than

1.0 GB/T 3209 Sulfur content (mass fraction)/not more than 0.0005% SH/T 0253b SH/T 0689 Mechanical impurities and water no visual c Copper corrosion (50 °C, 3h)/level of not more than 1 GB/T 5096 When a dispute, GB/T 1884 and GB/T 1885 Test Method for the arbitration. When b dispute, SH/T 0253 Test Method for the arbitration. c The sample injection 100mL glass graduated cylinder, observed at room temperature, the sample should be transparent, and without suspended sediment.