

Product Technical Data Sheet (TDS)

Polyether CPE-5 - Cashew Phenol-based Polyol

Product Introduction

CPE-5 is a biomass polyether polyol produced using cashew phenol as the initiator and KOH as the catalyst. This product contains 50wt% cashew phenol. The main raw material of this product is extracted and refined from natural cashew nut shell oil, and its biodegradability is superior to AEO products. The biodegraded products do not contain APEO or NPEO, do not affect the endocrine system of organisms, and do not cause ecological harm. It is a nonionic surfactant with high biodegradability and environmental friendliness, making it an ideal alternative to nonylphenol polyoxyethylene ether and fatty alcohol polyoxyethylene ether. It can be used as a textile refining agent, coating additive, wetting agent in pesticide chemicals, emulsifier, and co-emulsifier in emulsion polymerization.

Product Specifications

Item	CPE-5	Test Standard
Appearance	Yellow transparent liquid	Q/ZHDDZB 05.10.001-2024
Hydroxyl Value, mgKOH/g	96.0~105.0	Q/ZHDDZB 05.10.001-2024
Water Content, %	≤0.050	Q/ZHDDZB 05.10.001-2024
pH (1% aqueous solution)	5.0~7.0	Q/ZHDDZB 05.10.001-2024
Cloud Point (10% in 25% BDG solution), °C	69~72	Q/ZHDDZB 05.10.001-2024

Packaging

Packaged in clean, dry, sealed, leak-proof special painted iron drums, net weight 200kg per drum; or in tank trucks, flexitanks, IBCs. Can also be packaged according to customer requirements. Packaging containers must be tightly closed.

Storage & Transportation

During transportation of CPE-5, protect against rain and contamination. Handle with care, avoid collision with hard objects to prevent leakage.

CPE-5 should be stored in a ventilated, dry warehouse at room temperature. Avoid damp environments.

Storage temperature should be kept below 50°C. Avoid direct sunlight. Keep away from water sources and heat sources. Alternatively, store sealed in containers made of steel, aluminum, polyethylene, or polypropylene. To prevent moisture absorption and oxidation, it is recommended to fill the container with nitrogen gas. Storage temperatures above 60°C will lead to product quality degradation. Short-term temperature increases or decreases have little effect on product quality, but note that viscosity increases significantly at lower temperatures, which may cause some difficulties in production and processing.

Shelf Life

Under correct storage conditions, the shelf life is 6 months from the date of production. After expiration, it can still be used if it passes re-inspection.

Note: For low-odor products, customers are advised to use them as soon as possible.

Safety Information

CPE-5 is classified as a non-hazardous substance. It has a high flash point and is combustible. In case of fire, use foam, dry powder, steam, or water to extinguish. It is not explosive. It is almost non-toxic and requires no special ventilation. The toxicity of generally neutral polyether polyols upon ingestion or contact with skin, eyes, or mucous membranes is considered negligible. In case of skin contamination, wash with soapy water. In case of eye contact, flush with low-pressure clean water or seek medical treatment. Workers can wear protective goggles or safety glasses to protect their eyes. Eye wash and shower equipment should be available near the workplace. The product is generally considered non-hazardous to skin. When working in areas where contact with the product is possible, pay attention to personal hygiene. Before eating, smoking, or leaving the work area, clean skin that has been in contact with the product using cleaning products.

Spill Handling

Stop the leak if it is safe to do so. For minor spills, absorb with sand or other absorbent material and place in a clean, dry container for subsequent disposal. For large spills, contain the spilled material for subsequent recovery. Prevent material from entering groundwater or surface water, as it is not readily biodegradable. All collected spill material should be disposed of according to local environmental regulations.

Disclaimer

The information and technical advice provided above are obtained from reliable sources. However, we make no express or implied warranties regarding the provided data and offer no guarantees herein. We recommend conducting a series of tests if you intend to use our product. The application, use, processing, or production of products based on the technical information we provide is beyond our control, and therefore the responsibility lies with the user. The conditions and methods for handling, storage, use, or disposal of this product are beyond our control and may exceed our knowledge. In no event shall we be liable for any losses, damages, or expenses incurred due to improper handling, storage, use, or disposal of this chemical.

For more information, please refer to the Technical Safety Data Sheet (SDS) of our product or contact our Market Service Department.

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