

Technical Data Sheet (TDS)

Product Name: Polyether YT-51

Product Introduction

YT-51 is a monofunctional, high molecular weight, highly active block polyether polyol suitable for the preparation of spinning oil polyether intermediates. It is primarily used in the field of polyester pre-oriented yarn (POY) oils and fully drawn yarn (FDY) oils. It can wet the surface of the yarn, reduce friction on the yarn surface, facilitate spinning, reduce fuzz and breakage, and ensure the smooth progress of the spinning process. The product has good stability and provides excellent spinnability and continuity when used in spinning oils, effectively avoiding issues such as roller sticking, fly yarn, and fuzz.

Specifications

Item	YT-51	Test Standard
Appearance	Transparent liquid, free of suspended matter	Q/ZHDDZB 05.10.001-2024
Color (APHA)	≤50	
Viscosity (30°C), mPa·s	280~400	
Water Content, %	≤0.050	
Acid Value, mgKOH/g	≤0.050	
Σ (K ⁺ , Na ⁺), mg/kg	≤10	
pH Value	5.5~7.5	
Hydroxyl Value, mgKOH/g	49~53	
Cloud Point (1% Aqueous Solution)	71±2	

Packaging

Packaged in clean, dry, sealed, leak-proof dedicated painted iron drums, net weight 200kg per drum; or in tank trucks, flexitanks, IBCs. Packaging can also be customized according to customer requirements. Containers must be kept tightly closed.

Storage & Transportation

During transportation, protect YT-51 from rain and contamination. Handle with care to avoid impact and leakage caused by collision with hard objects.

Store YT-51 in a ventilated, dry warehouse at room temperature. Avoid damp environments. Storage temperature should be kept below 50°C. Avoid direct sunlight and 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 headspace with nitrogen. Storage temperatures above 60°C will lead to product quality

container headspace with nitrogen. Storage temperatures above 60 °C will lead to product quality degradation. Short-term temperature increases or decreases have little impact on product quality, but note that viscosity increases significantly at lower temperatures, which may cause difficulties in processing.

Shelf Life

Under correct storage conditions, the shelf life is 1 year from the date of production. After expiration, the product 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

YT-51 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 practically non-toxic and has no special ventilation requirements. The toxicity of typical neutral polyether polyols upon ingestion or contact with skin, eyes, or mucous membranes is negligible. In case of skin contact, wash with soap and water. In case of eye contact, flush with low-pressure clean water or seek medical treatment. Workers can wear eye shields or safety glasses for eye protection. Eye wash and shower facilities should be available near the work area. The product is generally considered non-hazardous to the skin. When working in areas where contact with the product is possible, pay attention to personal hygiene. Wash skin that has been in contact with the product using cleaning products before eating, drinking, smoking, or leaving the work area.

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, collect the spilled material for subsequent disposal. Prevent material from entering groundwater or surface water, as it is not readily biodegradable. All collected spill material should be disposed of in accordance with 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. Applications, uses, processing, or production based on the technical information we provide are 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. Under no circumstances 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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