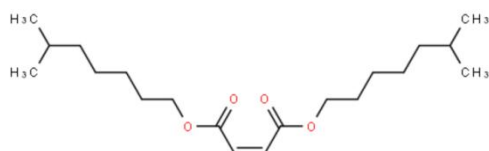


## Diocetyl Maleate DOM (CAS NO.2915-53-9)

### Basic Information:

Diocetyl maleate, also known as dioctyl maleate, referred to as DOM. It is a colorless to light yellow oily transparent liquid. It is miscible with ether and slightly soluble in water. The relative density is 0.944, the freezing point is -50°C, the boiling point is 203°C (0.67kPa), the refractive index is 1.4535, the viscosity (23°C) is 17mPa·s, and the flash point (open cup) is 170°C.

### Molecular structure:



### Synthetic route:

It uses maleic anhydride and octanol as main raw materials, and performs esterification under the action of catalyst. When the acid value reaches a certain requirement, the esterification reaction is stopped, and neutralization and water washing process are carried out after cooling. After water washing, vacuum distillation is carried out to distill off the excess octanol and water, and after cooling again, filtering and packaging are carried out to obtain the finished product.

### Typical properties:

项目 Item	数据 Data
外 观 Appearance	无色透明液体 Colorless Transparent liquid
色泽 Color (APHA)	≤ 50
酸值 Acid Value (mgKOH/g)	≤ 0.1
水分 Water Content%	≤ 0.1
总值含量 Total Content %	≥99.0

Product images :



## Application of Dioctyl Maleate:

Dioctyl maleate is used as an internal plasticizer. As a substitute for dioctyl phthalate DOP, dioctyl maleate does not contain o-phenyl groups. It can be used as an environmentally friendly plasticizer to replace DOP in some fields.

Dioctyl maleate DOM is a monomer with low activity. Therefore, it can be used as a reactive monomer and an external plasticizer. It can undergo polymerization with monomers containing double bonds (such as vinyl acetate, butyl acrylate, etc.). Therefore, it has good uses in water-based polymer emulsions or solvent-based resin systems, such as water-based adhesives and water-based pressure-sensitive adhesive systems. It can synthesize water-based adhesives or pressure-sensitive adhesives with moderate viscosity, good flexibility and good leveling. In solvent-based resins, it helps to reduce the viscosity of the resin system and can produce high-solid and low-viscosity resins.

Since dioctyl maleate has a lower glass transition temperature than dibutyl maleate DBM, when synthesizing resins or emulsions, a smaller amount of dioctyl maleate DBM is required to achieve the same glass transition temperature.

In addition, dioctyl maleate and isooctyl acrylate are both monomers with low glass transition temperature, but dioctyl maleate and isooctyl acrylate have lower odor and are superior to isooctyl acrylate in terms of polymer flexibility and elasticity. Therefore, it has better applications in some fields that require flexibility and elasticity, such as textile printing materials, flexible waterproof emulsions, packaging adhesives, and laminating adhesives.



### **Application of Dioctyl Maleate:**



In recent years, the application of Michael addition reaction is in full swing. Some users also use DOM maleate to react with amines to synthesize asparagine polyurea resin. The vigorous development of asparagine polyurea resin has promoted the development of maleic acid esters.

### **Application of Dioctyl Maleate:**



Dioctyl maleate DOM is the main raw material for synthesizing wetting agent OT-75. Dioctyl maleate is further sulfonated, and a certain proportion of alcohol and water are added and mixed evenly to make wetting agent OT-75.

There are many practical applications of dioctyl maleate, which will not be listed here today. The above applications are summarized in combination with our actual situation in the Chinese market, and there are mature users in each field. Jinjia New Materials has been focusing on the research and development, production and application research of maleic acid esters for nearly ten years, helping hundreds of users to use maleic acid esters, give full play to its advantages, and make products that meet user needs.

Now let's summarize the application of dioctyl maleate as follows:

1. As an environmentally friendly plasticizer, it replaces DOP and is directly added in certain fields;
2. It is used in emulsion polymerization or resin synthesis to reduce the viscosity of resin or emulsion, improve the flexibility of the product, and enhance the leveling and wetting dispersibility of the product;
3. It is used in the emulsion synthesis of printing glue;
4. It is used in asparagus polyurea resin as the main reaction raw material.
5. It is used as the main raw material for the synthetic wetting agent OT-75.

Product packaging:

200KG/barrel (iron barrel), or 1000KG (IBC barrel)

**Contact information:**

Foshan Jinjia New Materials Technology Co., Ltd. has been focusing on the research and development, production and application of maleic acid esters for nearly ten years and has accumulated rich experience. Friends at home and abroad are welcome to contact us to obtain samples and exchange application experience.

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