



## Merginat ESBO / Merginat ESBO-02

### PRODUCT INFORMATION

#### Product Description

Merginat ESBO and Merginat ESBO-02 are epoxidized vegetable oils based on soybean oil.

#### Typical Parameters

	Merginat ESBO	Merginat ESBO-02
<b>Oxirane Content [%]</b>	6.5 – 7.5	6.5 – 7.5
<b>Acid Value [mg KOH/g]</b>	Max. 0.5	Max. 0.3
<b>Viscosity at 20°C[mPa*s]</b>	400 - 600	500 - 600
<b>Iodine Value [g I<sub>2</sub>/100g]</b>	Max. 3.5	Max. 2.5
<b>Colour [Gardner]</b>	Max. 2	Max. 2
<b>Biobased carbon content <sup>1)</sup> [%]</b>	100	100

<sup>1)</sup> Measure of the amount of biomass-derived carbon in a product compared to its total carbon content

#### Application and Properties

Merginat ESBO and Merginat ESBO-02 find a wide range of application as epoxy-plasticisers. Besides their effectiveness as plasticisers both products show a distinct effect on stabilizing polymers against the influence of heat, light and weather. Thus they improve the heat-, light- and aging-resistance of many plastic materials and resins.

Due to their high molecular weight they distinguish by extensive extraction-resistance, low volatility and low migration tendency.

Merginat ESBO and Merginat ESBO-02 are compatible with a wide range of vinyl compounds like PVC and a variety of other synthetic resins such as nitrocellulose-products and chlorinated rubber. They also possess wetting- and emulsifying properties and facilitate in many cases the processing of lacquers, pastes and compounds.

Well known is also the synergistic effect with stabilizing metal compounds, leading in the individual case due to smaller charging amounts to savings of expense at better product properties.

Merginat ESBO is the standard type with a wide range of application possibilities.

The special features of Merginat ESBO-02 are a very low acid value and residual iodine value.

It is preferably used in those applications where high demands are made on odour- and taste neutrality as for instance in packing materials which come directly into contact with foodstuffs. So it is used as a standard material in bottle- and container-caps made from soft PVC. Both Merginat ESBO and Merginat ESBO-02 are recommended for use as plasticisers in plastic materials by the German Federal Public Health Office and by FDA in USA.



## Merginat ESBO / Merginat ESBO-02

### Storage advices

When Merginat ESBO and Merginat ESBO-02 are stored at temperatures lower than room temperature they tend to form "clouds" and deposited. This is due to the solidifying point. At temperatures around 3 °C or lower it can get pasty-solid. The exact behaviour in cold conditions is given by nature and not predictable. Amongst other things this can depend on the roughness of packaging material. This is a product specific, physical-only property that can be reversed by heating up to around 40 - 50 °C whilst stirring. This properties and the handling do not have any influence on the efficacy and the product properties relevant for application.

Therefore we recommend to store Merginat ESBO at room temperature or above (up to 40 °C) and to protect it against heat or frost. In addition, we recommend to heat and homogenize before usage. Sealed Merginat ESBO and Merginat ESBO-02 are at least 12 months storable. Usually storage up to 24 months is unproblematic.

### Disclaimer

This information is believed to be correct. However, this should not be accepted as guarantee and no statement should be construed as a recommendation for any use which would violate any patent rights.