

## Technical Information

## TAGAT® TO V

**Product description**

TAGAT® TO V is a liquid, non-ionic polyoxyethylene-25 glycerol trioleate emulsifier.

**Physical properties and product data**

Form (25 °C)	Liquid
Appearance (25 °C)	Clear to slightly turbid
HLB (+/-1)	11.3
Acid number	Max. 12 mg KOH/g
Saponification number	75 - 90 mg KOH/g
Hydroxyl number	18 - 33 mg KOH/g
Iodine number	34 - 41 gJ/100 g
Water	Max. 2 %

**Application**

TAGAT® TO V is used as emulsifier in a wide range of industrial applications, such as:

- Metal working fluids (MWF)
- Agrochemicals
- Textile auxiliaries
- Concrete release agents

In the case of MWF applications, TAGAT® TO V is mainly used for the formulation of environmentally friendly fluids based on mineral oils (especially naphthenic mineral oils) and synthetic ester oils (e. g. iso-octyl oleate), as well as ester oil/mineral oil blends.

**Properties / Benefits**

TAGAT® TO V has excellent emulsifying properties and ensures the spontaneous formation of finely dispersed, stable oil-in-water emulsions. This allows in general a reduction of the total emulsifier content which is necessary for the fluid emulsification.

TAGAT® TO V is an emulsifier based on raw materials derived from vegetable products; therefore,

- TAGAT® TO V has good toxicological and ecological properties (water hazard classification = 1)
- TAGAT® TO V does not require any hazard warning labels in accordance with EG directives/German regulations on dangerous substances
- TAGAT® TO V has good dermatological properties (no skin irritation)

**Dosage / Handling**

If TAGAT® TO V is used as sole emulsifier, 10 to 15 % based on total oil content will be sufficient to obtain stable emulsions. Control of the right HLB value is necessary and may require additional surfactants, such as TEGIN® O V.

If TAGAT® TO V is used in combination with other surfactants for the formulation of MWF, we recommend a dosage of 3 - 9 %.

Basic guide recipes and formulating hints are available upon request.

**Registration status**

The ingredients of TAGAT® TO V are listed in the following chemical inventories:

EINECS, TSCA, AICS, ENCS, NDSL, PICCS and CHINA

**Storage stability**

In original closed containers TAGAT® TO V can be stored at temperatures below 40°C for at least 1 year.

**Packaging**

1 000 kg IBC  
Other packages are available on request.

## Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicity and ecological effects

is given in our material safety data sheets.

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