

Disponil® LS 500

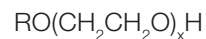
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**Fatty alcohol ethoxylate for the chemical industry and
emulsion polymerization**

Chemical nature

Disponil® LS 500 is a high ethoxylated emulsifier based on a native fatty alcohol.

The general formular is described as follows:



$$\begin{aligned} \text{R} &= \text{C}_{12}\text{C}_{14} \\ \text{X} &= 50 \end{aligned}$$

PRD-No.*

30529420

* BASF's commercial product numbers.

Appearance

Disponil® LS 500 is a white to slightly yellowish solid.

Handling and Storage**Handling**

- The storage temperature of Disponil® LS 500 should not be allowed to exceed 35 °C.
- The product must be protected from sunlight to ensure that they do not form lumps.
- The product is not destroyed by freezing.
- Pallets are not to be stacked in order to prevent lump formation.
- Please refer to the latest Safety Data Sheet for detailed information on product safety.

Materials

The following materials can be used for tanks and drums:

- HDPE

Shelf life

Disponil® LS 500 has a shelf life of 24 months provided it is stored properly and bags are kept tightly sealed.

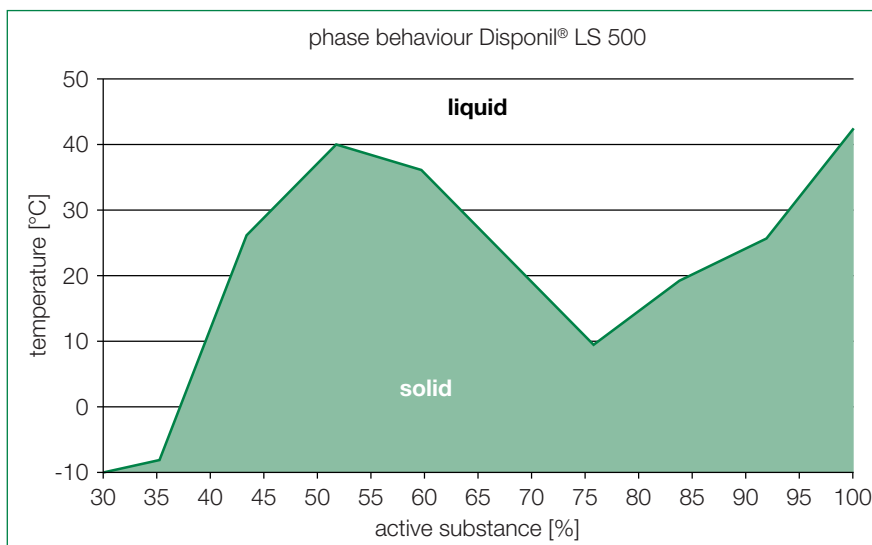
Properties

Some physical properties are listed in the table below. These are typical values only and not all of them are monitored on a regular basis. They are correct at the time of publication and do not necessarily form part of the product specification. A detailed product specification is available on request or via BASF's WorldAccount: <https://worldaccount.basf.com> (registered access).

Disponil® LS 500	Unit	Value
Physical form (23 °C)		solid
Active matter	%	~ 100
pH-value (EN 1262, 1%, KCl 0.03%)		~ 6.5
Water content (EN 13267)	%	~ 0.2
Hydroxyl value (DIN 53240)	mg KOH/g	~ 28
Density (DIN 51757, 70°C)	g/cm ³	~ 1.052
Cloud point (EN 1890, method C)	°C	~ 76
Pourpoint (ISO 3016)	°C	~ 45
HLB-value (calculated)		18.5

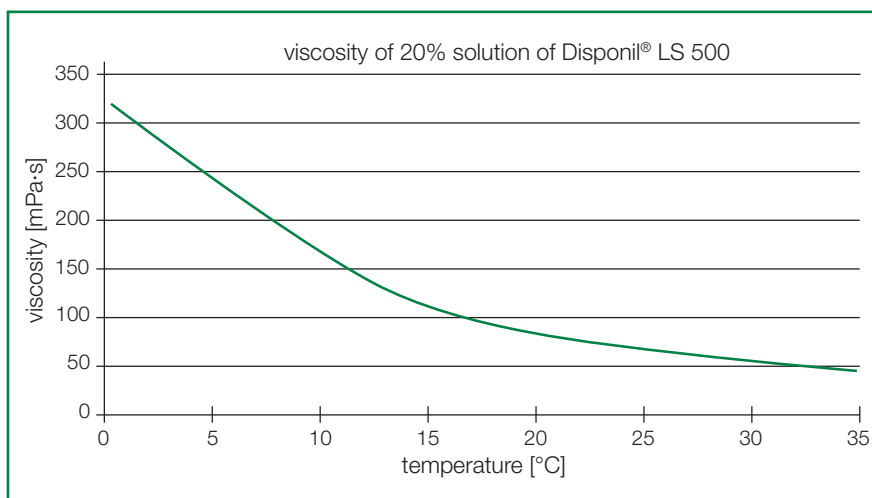
Solubility

As most linear fatty alcohol ethoxylates Disponil® LS 500 exhibits a phase behaviour when diluted with water. The following diagram shows the pourpoint of dilutions with different active matter concentrations. When diluting the product it should be ensured to stay at temperatures well above the pourpoint in order to avoid gel phases. In addition it is recommended to add the product to the water phase.



Viscosity

The relationship of the viscosity as a function of temperature is always an important point to consider, as far as storage, shipping and dosage is concerned. The following diagram shows this relationship for an aqueous dilution with 20% active matter:



Application

Disponil® LS 500 is a non ionic emulsifiers for use in a variety of emulsion polymerization formulations, especially hydrophilic formulations such as vinyl acetate systems.

Beside improved stabilization properties in aqueous based polymer systems, Disponil® LS 500 exhibits excellent biodegradability behaviour and is classified as "readily biodegradable".

Disponil® LS 500 could be used in combination with anionic or cationic surfactants throughout the polymerization. Beside that it may be used as post addition in order to stabilize the emulsion.

Usually Disponil® LS 500 is used at a concentration of 1 to 5% active ingredient per dry content of the emulsion. Depending on the monomer system an amount of 2% is suitable in most cases.

Disponil® LS 500 may be used to emulsify hydrophobic liquids or other hydrophobes, such as pigments, resins or fats.

Safety

We are not aware of any ill effect that can result from using Disponil® LS 500 for the purpose for which it is intended and from processing it in accordance with current practices.

According to the experience that we have gained over many years and other information at our disposal, Disponil® LS 500 does not exert harmful effects on health, provided it is used properly, due attention is given to the precautions necessary for handling chemicals, and the information and advice given in our Safety Data Sheets are observed.

Labelling

Please consult the current Safety Data Sheets for information on the classification and labelling of our products and other information relevant to safety.

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July 2015