Technical Information

Emulan® LVA

September 2013

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® = Registered trademark of BASF

Nonionic emulsifier for the chemical and allied industries



Chemical nature

Alcohol polyglycol ether

PRD-No.*

30218794

Properties

Active ingredient		Alcohol polyglycol ether
Surface Type		nonionic
Appearance (23 °C)		clear, colorless liquid
HLB value		approx. 14
Viscosity (23 °C)	mPa⋅s	approx. 100
Setting point	°C	<0
Density (23 °C)	g/cm³	1.02
Surface tension (23 °C)		
1 g/l	mN/m	approx. 27
pH value (5% in wather)		approx. 7
Cloud point (1% in wather)	°C	approx. 58
Solubility in wather		forms clear solution, no gelling
Foam volume (EN 12728, 40 °C, after 30 s)		
2 g/l	ml	approx. 380
Wetting (EN 1772, 23 °C)		
1 g/l	S	approx. 10
2 g/l	S	approx. 5

Solubility

The solubility of Emulan® LVA (10% at 23 °C, BASF method)

Dist. water	+
Potable water	+
Caustic soda, 5%	_
Hydrochloric acid, 5%	+
Salt solution, 5%	+
Mineral spirit	_
Spindle oil	_
Ethanol	+
Isopropanol	+
Toluol	_

The above table shows the solubility of 10% solutions of Emulan® LVA at 23 $^{\circ}$ C.

^{*} BASF's commercial product numbers.

^{+ =} clear soluble

^{- =} insoluble

 $[\]pm$ = sparingly soluble

o = opalescent solution

Viscosity

For transportation and storage of Emulan® LVA, it is important to know its viscosity changes with temperature. The table below shows this relationship.

The viscosity of mixtures of Emulan® LVA and water (EN 12092, 23 °C, in mPa·s)

Addition of water (%)	Emulan® LVA
10	100
20	105
30	125
40	110
50	80
60	65
70	30
80	<20
90	<20

Storage

- a) Emulan® LVA should be stored in its original packaging, which should be kept tightly sealed, in a dry place. Storerooms must not be overheated.
- b) Avoid a humid environment, because the product is hygroscopic and, being readily soluble in water, absorbs moisture immediately. For this reason, it is advisable to reseal drums tightly without delay each time material is taken from them.
- c) The congealing points of Emulan® LVA must be taken into consideration when determining the storage temperature.
- d) Emulan® LVA becomes slightly cloudy if it is stored at low temperatures, but this has no effect on the product properties.

 The cloudiness can be reversed at 50 60 °C.
- e) Product that has solidified or that shows signs of precipitation should be heated to 50 70 °C and homogenized before use.
- f) Product in drums that has solidified or that shows signs of precipitation should be melted or heated gently in a heating cabinet or heated chamber; the temperature should not exceed 50 70 °C, depending on the particular congealing or melting point. This also applies if electric drum heaters are used. Internal electrical elements are unsuitable for heating owing to the high heat load in some places.
- g) If Emulan® LVA is stored in heated tanks at 50 70 °C (depending on the particular congealing or melting point), care must be taken to ensure that it does not come into contact with air (blanket with nitrogen). Constant gentle stirring prevents it from overheating or becoming discolored as a result of prolonged contact with the heating elements or external heating jacket.

Materials

Tanks made of the following materials are suitable for the storage of Emulan® LVA:

- a) V2A stainless steel (1.4541 or X6 CrNiTi 1810)
- b) V4A stainless steel (1.4571 or X6 CrNiMoTi 17122)

Shelf life

Emulan® LVA has a shelf-life of at least 24 months, provided it is stored in its original packaging and kept tightly sealed.

Safety

We know of no ill effects that could have resulted from using Emulan® LVA for the purpose for which it is intended and from processing it in accordance with current practice. According to the experience we have gained over many years and other information at our disposal, Emulan® LVA does not exert any harmful effects on health, provided that 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.

Note

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