

Technical Information

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Deriphat® 160 C

® = Registered trademark of BASF

Amphoteric surfactant for the detergents and cleaner industry

Chemical character

Deriphat® 160 C is an amphoteric surfactant based on sodium N-lauryl-beta-iminodipropionate.

PRD-No.*

30528512

* BASF's commercial product numbers.

Appearance

Deriphat® 160 C is a clear yellowish liquid at room temperature and is prone to sedimentation at low temperatures.

Handling and Storage**Handling**

- a) Deriphat® 160 C should be stored indoors in a dry place.
- b) The storage temperature should not be allowed to fall substantially below 20 °C. The congealing point of Deriphat® 160 C also need to be taken into account.
- c) Deriphat® 160 C is a cloudy liquid and tends to form sediment, it becomes a clear liquid at 40 °C.
- d) Liquid that has solidified or that shows signs of sedimentation should be heated to 50 – 70 °C and homogenized before it is processed. Please mix sufficiently prior to use.
- e) Drums that have solidified or that have begun to precipitate should be reconstituted by gentle heating, preferably in a heating cabinet. The temperature must not be allowed to exceed 70 °C. Please mix sufficiently prior to use. This also applies if drums are heated by external electrical elements. Internal electrical elements should not be used because of the localized anomalies in temperature that they cause.
- f) Deriphat® 160 C must be blanketed with nitrogen if it is stored in heated tanks (at 50 – 60 °C) to prevent it from coming into contact with air. Constant, gentle stirring helps to prevent it being discolored as a result of prolonged contact with electrical elements or external heating coils.
- g) 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:

- a) AISI 321 stainless steel (X6CrNiTi1810)
- b) AISI 316 Ti stainless steel (X6CrNiMoTi17122)

Shelf life

Provided it is properly stored and drums are sealed, Deriphat® 160 C has a shelf life of at least one year in the original packaging.

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).

Deriphat®	Unit	Value
Physical form (23 °C)		liquid
Water content (EN 13267)	%	approx. 70
Active matter (100%-water content)	%	approx. 30
Acid number (ISO 2114)	mg KOH/g	approx. 50
pH-value (EN 1262, solution A)		approx. 8
Density (DIN 51757, 23 °C)	g/cm ³	approx. 1.04
Density (DIN 51757, 70 °C)	g/cm ³	approx. 1.01
Pour point (ISO 3016)	°C	approx. 0
Viscosity (EN 12092, 23 °C, Brookfield, 60 rpm)	mPa · s	approx. 20
Wetting (EN 1772, distilled water, 23 °C, 2 g Soda ash/l)		
2,0 g/l	s	>300
Foam volume (EN 12728, 40 °C, 2 g/l water at a hardness of 1.8 mmol Ca- ions/l, after 30 s)	cm ³	approx. 500
Surface tension (EN 14370, 1 g/l in distilled water, 23 °C)*	mN/m	approx. 26

* Applying Harkins-Jordan correction.

Solubility

Details on the solubility of Deriphat® 160 C in various solvents are given in the table below.

Solubility of Deriphat® 160 C (10% at 23 °C)

Deriphat® 160 C	
Distilled water	+
Potable water (2.7 mmol Ca ²⁺ -ions/l)	+
Caustic soda (5%)	+
Hydrochloric acid (5%)	+
Salt solution (5%)	–
Solvent naphtha	–
Ethanol, Isopropanol	+
Aromatic hydrocarbons	–

+ = *clear solution*

± = *sparingly soluble (insoluble sediment)*

– = *insoluble (phase separation)*

O = *forms an opaque soluble, homogeneous emulsion*

Viscosity

The relationship between viscosity and temperature is always an important point to consider when Deriphat® 160 C is stored or shipped. This is shown in the following table (Brookfield LVT):

Temperature (°C)	Viscosity (mPa·s)
0	Solid
10	>7500
20	20
23	<20
30	<20
40	<20
50	<20
60	<20

We would recommend the preparation of 10 – 25% stock solutions of Deriphat® 160 C if it is to be used in the form of very dilute solutions, or if it is to be added to other solutions. This makes it very much easier to dilute it later on.

In various aqueous solutions of Deriphat® 160 C, no impact on viscosity is noticeable.

Safety

We are not aware of any ill effect that can result from using Deriphat® 160 C 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, Deriphat® 160 C 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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