
Technical Information

February 2015
Supersedes issue dated December 2014

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WF-No. 5811

® = Registered trademark of BASF

Disponil® A types

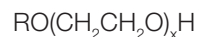
Disponil® A 1080
Disponil® A 1580
Disponil® A 3065
Disponil® A 4065

Nonionic emulsifiers for the chemical industry and emulsion polymerization

Chemical nature

The Disponil® A types are modified ethoxylates of native fatty alcohols with improved process behaviour in comparison to the standard fatty alcohol ethoxylates.

The general formular of the fatty alcohol ethoxylate component is described as follows:



$$\text{R (A 1080/A 1580/A 3065)} = \text{C}_{12}\text{C}_{14}$$

$$\text{R (A 4065)} = \text{C}_{16}\text{C}_{18}$$

$$x = 10, 15, 30, 40$$

PRD-Nos.*

30529357	Disponil® A 1080
30529449	Disponil® A 1580
30529347	Disponil® A 3065
30529434	Disponil® A 4065

* BASF's commercial product numbers.

Storage

- The storage temperature of the Disponil® A grades should not be allowed to exceed 50 °C.
- The products are not destroyed by freezing. When stored below their pour points, they will become solid and are not pumpable, anymore.
- Liquid that has solidified or that shows signs of sedimentation should be heated to max. 70 °C (max 24h) and homogenized before it is processed. Please mix sufficiently prior to use.
- 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.
- It is recommendet to cover the Disponil® A-grades with nitrogen if they are stored in heated tanks at approx. 50 °C to prevent it from coming into contact with air. Constant, gentle stirring helps to prevent it being damaged as a result of prolonged contact with electrical elements or external heating coils.

Materials

The following materials can be used for tanks and drums:

- HDPE
- Stainless steel 1.4571 - AISI 316 Ti stainless steel (X6 CrNiMoTi 17122)

Shelf life

Provided they are stored properly and drums are kept tightly sealed, the Disponil® A-grades are suitable to be stored for at least 24 months.

The pH value might drop throughout the storage time, which is a common phenomena of ethoxylated fatty alcohols. This usually does not have a negative effect on the product properties. If required, the pH value may be increased by adding diluted sodium hydroxyde solution.

Properties

The Disponil® A types are colorless to slightly yellow liquids.

	Unit	A 1080	A 1580	A 3065	A 4065
Degree of ethoxylation	n EO	~ 10	~ 15	~ 30	~ 40
Physical form (23 °C)		liquid	liquid	liquid	liquid
Aktive matter (100 - water)	%	~ 80	~ 80	~ 65	~ 65
Water (EN 13267)	%	~ 20	~ 20	~ 35	~ 35
pH value (EN 1262, 10%, KCl 0.03%)		~ 7	~ 7	~ 7	~ 7
Pourpoint (DIN ISO 3016)	°C	< 10	< 15	< 10	< 15
Cloudpoint (EN 1890, Verfahren C)	°C	~ 65	~ 73	~ 77	~ 76
Density (DIN 51757, 23 °C)	g/cm ³	~ 1.03	~ 1.04	~ 1.07	~ 1.07
Surface tension, static (1% active substance, 25 °C, EN 14370)	mN/m	~ 33	~ 36	~ 37	~ 38
Critical micelle concentration (25 °C, EN 14370)	g/l*	< 0.1	< 0.1	~ 0.2	~ 0.3

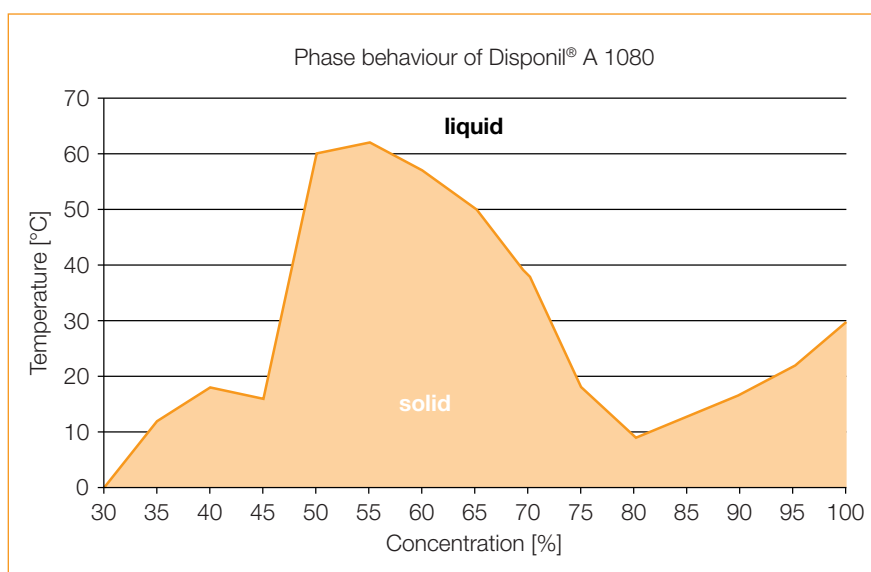
* active substance

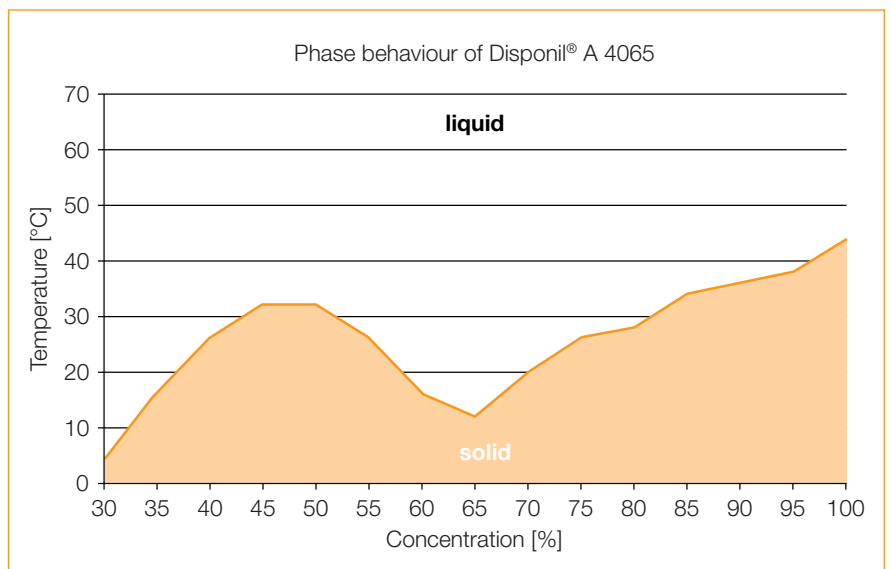
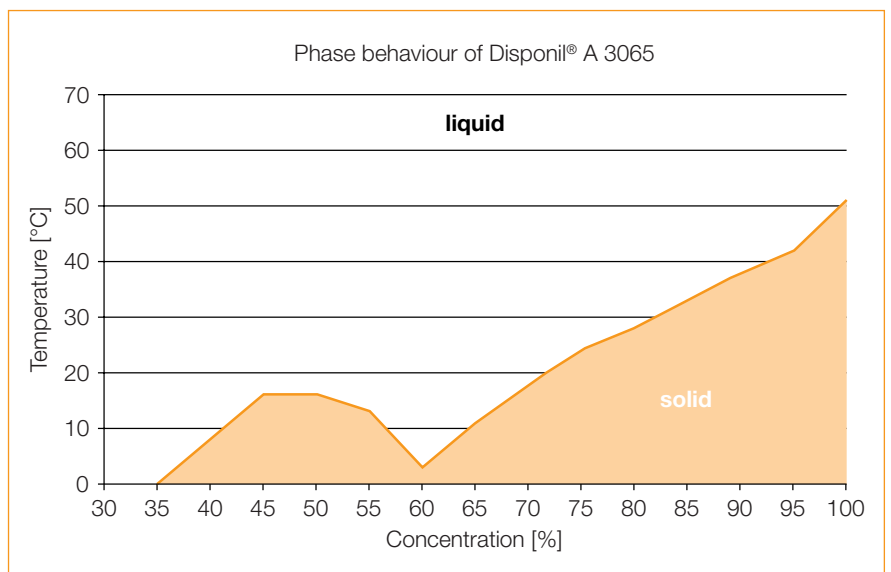
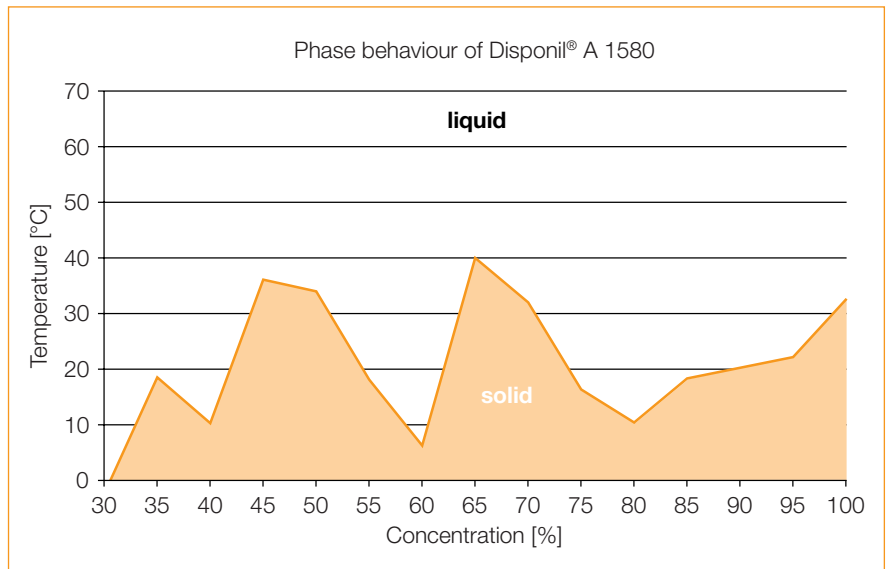
The information above is valid on the date of printing. Not all of these are part of the certificate of analysis.

The specified criteria are mentioned in the product specification which is available via your local BASF representative.

Solubility

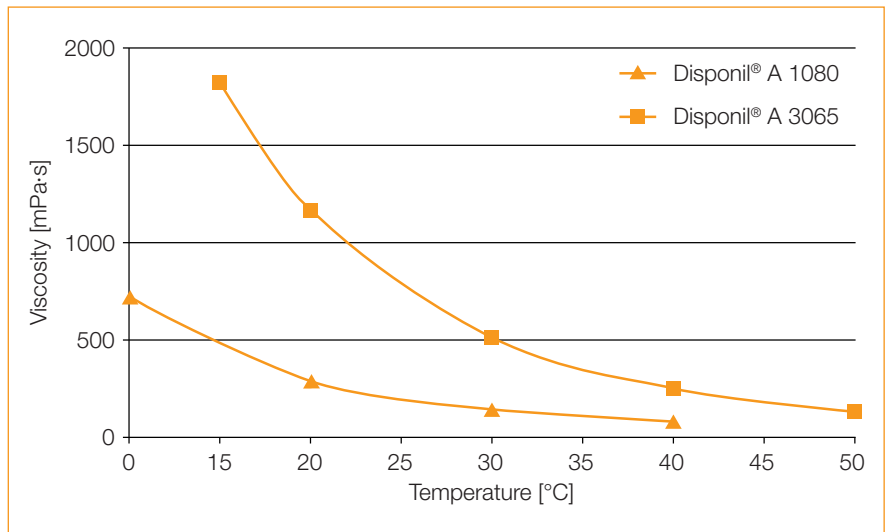
As most linear fatty alcohol ethoxylates, the Disponil® A types exhibit a phase behaviour when diluted with water. The following diagram shows the pourpoint of dilutions with different active matter concentrations. When diluting the products it should be ensured to stay at temperatures well above the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





Viscosity

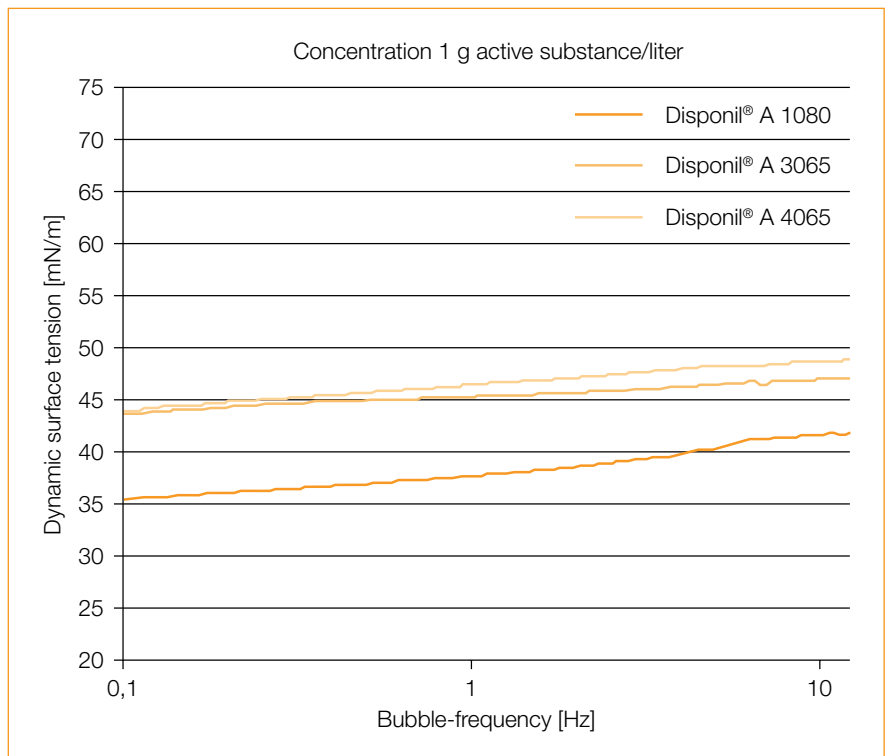
The relationship of the viscosity as a function of temperature is always an important point to consider, as far as storage, shipping and dosage are concerned. The following diagram shows this relationship for some selected products of the Disponil® A range:



Viscosity as a function of temperature.

Dynamics

Dynamic surface tension is an indicative measure of the speed with which a surfactant can orientate at new interfaces. This is particularly important, for example, during the dosing processes.



Safety

We know of no ill effects that could have resulted from using the Disponil® A types for the purpose for which they are intended and from processing them in accordance with current practice.

According to the experience we have gained over many years and other information at our disposal, the Disponil® A types do not exert any harmful effects on health, provided that they are 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 refer to the latest safety data sheets for detailed, up-to-date information on classification, labelling and product safety.

Note

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