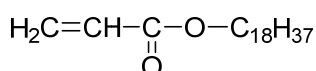


Stearyl Acrylate 18 (SA 18)

Acrylic acid ester, for manufacturing polymers and for use as a feed stock for syntheses



CAS No.: 4813-57-4
EINECS No.: 225-383-3

Molecular formula

C₂₁H₄₀O₂

Molar mass: 324.6 kg/kmol

Product specification

Assay (Gas chromatography)	min. 92 %
Water content (ASTM E 203)	max. 0.1 %
Acid content (calc. as acrylic acid) (ASTM D 1613)	max. 0.05 %
Color on dispatch (APHA, ASTM D 1209)	max. 125
Standard stabilization (HPLC)	175 ± 25 ppm MEHQ

The aforementioned data shall constitute the agreed contractual quality of the product at the time of passing of risk. The data are controlled at regular intervals as part of our quality assurance program. Neither these data nor the properties of product specimens shall imply any legally binding guarantee of certain properties or of fitness for a specific purpose. No liability of ours can be derived therefrom.

Other properties

Appearance	clear, pale yellow
Physical form	Liquid or solid
≤C16 ester (GC)	max. 1%
C18 ester (GC)	min. 98%
≥C20 (GC)	max. 1%
Density at 20 °C	0.904 g/cm ³
Melting point	25 °C
Boiling point	160 °C at 3 hPa
Flash point	>100 °C
Vapor pressure at 20 °C	0.00000413 hPa
Peroxide content (ISO 3960)	max. 5 ppm
T _g , homopolymer	- 58 °C

Labelling according to local Directives

see SDS

Applications

Stearyl Acrylate 18 (SA 18) forms homopolymers and copolymers. Copolymers of Stearyl Acrylate 18 (SA 18) can be prepared with (meth)acrylic acid and its salts, amides and esters, and with methacrylates, acrylonitrile, maleic acid esters, vinyl acetate, vinyl chloride, vinylidene chloride, styrene, butadiene, unsaturated polyesters and drying oils, etc. Stearyl Acrylate 18 (SA 18) is also a very useful feedstock for chemical syntheses, because it readily undergoes addition reactions with a wide variety of organic and inorganic compounds. Stearyl Acrylate 18 (SA 18) is used in pour-point depressant, slip-coatings, oil additives and emulsifiers. Stearyl Acrylate 18 (SA 18) can be used in release paper coatings.

Features & Benefits

Stearyl Acrylate 18 (SA 18) is a monofunctional monomer with a characteristic high reactivity of acrylates and a long hydrophobic chain. Stearyl Acrylate 18 (SA 18) can be used to impart the following properties to polymers:

- Hydrophobicity
- Low Shrinkage
- Chemical resistance
- Flexibility
- Impact resistance
- Weatherability

Storage & Handling

In order to prevent polymerization, Stearyl Acrylate 18 (SA 18) must always be stored under air, and never under inert gases. The presence of oxygen is required for the stabilizer to function effectively. It has to contain a stabilizer and the storage temperature must not exceed 35 °C. Under these conditions, a storage stability of one year can be expected upon delivery. In order to minimize the likelihood of overstorage, the storage procedure should strictly follow the "first-in-first-out" principle.

If Stearyl Acrylate 18 (SA 18) is crystallized the product can be melted safely with heating temperatures up to 60 °C. It should not be stored at this temperature for more than 5 days in order to prevent degradation in quality and premature formation of polymer fractions. In order to reduce the thermal stress during the melting process air convection should be very good. Under such favorable conditions melting can be achieved within 24 hours.

The preferred construction material for tanks and pipes is stainless steel. Carbon steel is also acceptable, although the formation of rust may be a problem with product quality (color). Iron(III)-ions have been shown to be a weak polymerization initiator. If carbon steel is to be used, special procedures should be used to prepare the tank for use. Storage tanks, pumps and pipes should be earthed.

Safety

A Safety Data Sheet has been compiled for Stearyl Acrylate 18 (SA 18) that contains up-to-date information on questions relevant to safety.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

December 2016