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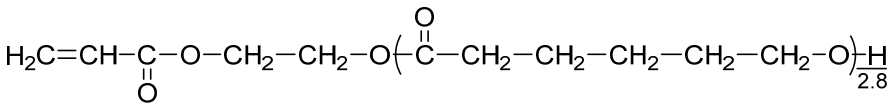
Hydroxyethylcaprolactone Acrylate (HECLA)

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

CAS No.: 110489-05-9



Molecular formula $C_{21,8}H_{36}O_{8,6}$ Molar mass: 436 kg/kmol

Product specification

Saponification value (ISO 3657)	min. 203 mg KOH/g
Hydroxyl value (ASTM E 1899; 08-23)	163.7 ± 5 mg KOH/g
Water content (ASTM E 203)	max. 0.1 %
Acid value (ASTM D 1045; 01-06)	max. 4.0 mg KOH/g
Color on dispatch (Pt/Co, ASTM D 1209; 03-18)	max. 100
Standard stabilization (ASTM D 3125)	700 ± 200 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, colorless to pale yellow
Physical form	liquid
Odor	characteristics
Density at 25 °C	1.09 g/cm³
Flash point	> 120 °C

Labelling according to local Directives

see SDS

Applications

Hydroxyethylcaprolactone Acrylate (HECLA) forms homopolymers and copolymers. Copolymers of Hydroxyethylcaprolactone Acrylate (HECLA) can be prepared with 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. Hydroxyethylcaprolactone Acrylate (HECLA) is also a very useful feedstock for chemical syntheses, because it readily undergoes addition reactions with a wide variety of organic and inorganic compounds.

Hydroxyethylcaprolactone Acrylate (HECLA) is an ideal capping agent for UV curable wear layers on PVC and parquet flooring and offering versatility in UV curable printing inks in food packaging applications.

Features & Benefits

Hydroxyethylcaprolactone Acrylate (HECLA) is a caprolactone modified version of Hydroxyethyl Acrylate (HEA). By incorpporating an average of 2.8 moles of caprolactone per mole of Hydroxyethyl Acrylate (HEA). Hydroxyethylcaprolactone Acrylate (HECLA) can be used to impart the following properties to polymers:

- Flexibility
- Hardness
- Chemical resistance
- Crosllinking
- Adhesion
- Weatherability

Storage & Handling

In order to prevent polymerization, Hydroxyethylcaprolactone Acrylate (HECLA) 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 temeprature 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 “first-in-first out” principle. For extended storage periods over 4 weeks it is advisable to replenish the dissolved oxygen content.

Storage tanks and pipes should be made of stainless steel or aluminum. Although Hydroxyethylcaprolactone Acrylate (HECLA) does not corrode carbon steel, there is a risk of contamination if corrosion does occur. Storage tanks, pumps and pipes should be earthed.

Safety

A Safety Data Sheet has been compiled for Hydroxyethylcaprolactone Acrylate (HECLA) 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.

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