Technical Information



Edition dated November 2020

2-Ethylhexyl Acrylate

Supersedes edition dated May 2020

2-Ethylhexyl Acrylate

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

CAS No.: 103-11-7 EINECS No.: 203-080-7

Molecular formula

C₁₁H₂₀O₂

Molar mass: 184.3 kg/kmol

Product specification

Assay (Gas chromatography) min. 99.60 % Water content (ASTM E 203) max. 0.050 % Acid content (calc. as acrylic acid) max. 0.0090 %

(ASTM D 1613)

T 3 (200-300°C)

Color on dispatch max. 10

(APHA, ASTM D 1209)

Standard stabilization 15 ± 5 ppm MEHQ

(ASTM D 3125 or HPLC)

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

Labelling according to local Directives

see SDS

Appearance	clear, colorless
Physical form	liquid
Odor	sweet
Density at 20 °C	0.885 g/cm ³
Refractive index n _D at 20 °C	1.435
Boiling point at 1013 mbar	216 °C
Boiling point at 13 mbar	91 °C
Freezing point	-90 °C
Viscosity at 0 °C	2.9 mPa ⋅ s
at 20 °C	1.7 mPa ⋅ s
at 100 °C	1.2 mPa ⋅ s
Specific heat of liquid	1.93 kJ/(kg ⋅ K)
Heat of evaporation at boiling point	248 kJ/kg
Heat of polymerization	332 kJ/kg
Vapor pressure at 20 °C	0.1 mbar
at 50 °C	1.2 mbar
at 100 °C	19.8 mbar

Temperature rating for electrical

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Applications

2-Ethylhexyl Acrylate forms homo- and copolymers. Copolymers of 2-Ethylhexyl Acrylate can be prepared with acrylic acid and its salts, amides and esters, methacrylates, acrylonitrile, maleates, vinyl acetate, vinyl chloride, vinylidene chloride, styrene, butadiene, unsaturated polyesters, and drying oils. 2-Ethylhexyl Acrylate is also an important feedstock for chemical syntheses because it readily undergoes addition reactions with many organic and inorganic compounds.

Storage & Handling

In order to prevent polymerization, 2-Ethylhexyl Acrylate 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. 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 2-Ethylhexyl Acrylate does not corrode carbon steel, there is a risk of contamination if corrosion does occur.

Regulations for the storage of flammable liquids must be observed (explosion-proof electrical equipment, vented tanks with flame arresters etc.). Storage tanks, pumps and pipes must be earthed.

For more detailed information please consult also the brochure "SAFE HANDLING AND STORAGE OF ACRYLIC ESTERS" of EBAM.

Safety

A Safety Data Sheet has been compiled for 2-Ethylhexyl Acrylate 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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