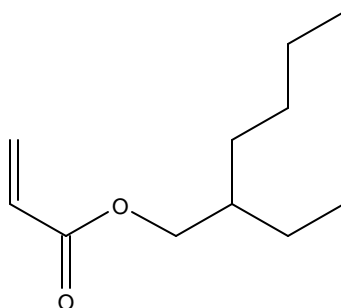


2-Ethylhexyl Acrylate

Acrylic ester for manufacturing polymers and for use as a feedstock for syntheses.

Structural formula



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

$C_{11}H_{20}O_2$

Molar mass: 184.3

Product specification

Assay (Gas chromatography)	%	99.6 (min.)
Water content (ASTM E 203)	%	0.05 (max.)
Acid content (calc. as acrylic acid) (ASTM D 1613)	%	0.009 (max.)
Color on despatch (APHA, ASTM D 1209)		10 (max.)
Standard stabilization (ASTM D 3125)	ppm MEHQ	15 ± 5

Other properties

Appearance		clear, colorless
Physical form		liquid
Odor		sweet
Density at 20°C	g/cm ³	0.887
Refractive index n_d at 20°C		1.435
Boiling point at 1013 mbar	°C	216 (decomp.)
Boiling point at 13 mbar	°C	91
Freezing point	°C	ca. -90
Viscosity at 20°C	mPa•s	1.7
Specific heat of liquid	kJ/kg°C	1.89
Heat of evaporation at boiling point	kJ/kg	248
Heat of polymerization	kJ/kg	ca. 332
Vapor pressure at 20°C	mbar	0.1
Temperature rating for electrical equipment (VDE 170/171)	°C	T 2 (200-300)

Applications

2-Ethylhexyl acrylate forms homopolymers and copolymers. Copolymers of 2-ethylhexyl acrylate 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. 2-ethylhexyl acrylate is also a very useful feedstock for chemical syntheses, because it readily undergoes addition reactions with a wide variety of organic and inorganic compounds.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Material Safety Data Sheet

A Material Safety Data Sheet has been compiled for 2-ethylhexyl acrylate that contains up-to-date information on all concerns relevant to safety.

Industrial Hygiene

Refer to the Material Safety Data Sheet for 2-ethylhexyl acrylate for information regarding industrial hygiene.

Labelling

Refer to the Material Safety Data Sheet for 2-ethylhexyl acrylate for information regarding labelling.

Storage

In order to prevent polymerisation, butyl 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. 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 four weeks, it is advisable to replenish the dissolved oxygen content.

Storage tanks and pipes should be made of stainless steel or aluminium. 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 the brochure "SAFE HANDLING AND STORAGE OF ACRYLIC ESTERS" of EBAM.

Important

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