Technical Information

2-Ethylhexyl acrylate

June 2013

Supersedes edition dated November 2008

Acryl acid ester, for manufacturing polymers and for use as feedstock for syntheses.

$$CH_2 = CH - C - O - CH_2 - CH - (CH_2)_3 - CH_3$$

$$II$$

$$O$$

$$CH_2 - CH_3$$

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

Molar mass: 184.3

 $C_{11}H_{20}O_2$

Product specification

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

max. 10 15 \pm 5 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 there from.

Other properties

Appearance		Clear, colorless
Physical form		Liquid
Odor		Sweet
Density at 25 ⁰ C (DIN 51757)		0.885 g/cm ³
Refractive index n _d at 20 ⁰ C (DIN 53169)		1.435
Boiling point at 1013 mbar		216 ⁰ C
Boiling point at 13 mbar		91 [°] C
Freezing point		approx. –90 [°] C
Viscosity at 20 [°] C		1.7 mPa.S
Specific heat of liquid		1.89 kJ/kg⁰C
Heat of evaporation at boiling point		248 kJ/kg
Heat of polymerization		approx. 332 kJ/kg
Vapor pressure		
at 20 ⁰ C		0.1 mbar
at 50°C		1.2 mbar
at 100 ⁰ C		19.8 mbar
Temperature rating for electrical equipment	(VDE 170/171)	T 2 (200 – 300 ⁰ C)





Kuala Lumpur Office 2, Jalan Astaka U8/87, Seksyen U8, Bukit Jelutong, Shah Alam 40150, Selangor Darul Ehsan, M Tel: +60-3-78412200 Fax: +60-3-78466624 Kuantan Integrated Chemical Site Jalan Gebeng 2/1, Kawasan Perindustrian Gebeng, 26080 Kuantan, Pahang Malaysia. Tel: +60-9-5855000 Fax: +60-9-5834272 E-mail: info.service@basf-petronas.com.my

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 acid and inorganic compounds.
Safety	A material Safety Data Sheet has been compiled for 2-Ethylhexyl acrylate that contains up-to-date information on all questions relevant to safety.
Labelling	Refer to Material Safety Data Sheet of 2-Ethylhexyl acrylate for information on labeling.
Industrial Hygiene	Refer to Material Safety Data Sheet of 2-Ethylhexyl acrylate for information on industrial hygiene.
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. In order to minimize the likelihood of over-storage, 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.
	Stainless steel or aluminium should be used for tanks and pipes. 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.
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 regulation are observed.



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