Technical Information

June 2013

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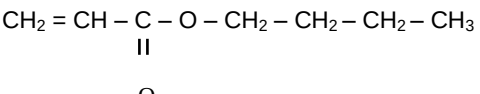
Butyl acrylate

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



$C_7H_{12}O_2$

CAS No.: 141-32-2
EINECS No.: 205-480-7

Molar mass: 128.2

Product specification

Assay (Gas chromatography)	min. 99.5%
Water content (ASTM E 203)	max. 0.05%
Acid content (calc. as acrylic acid) (ASTM D 1613)	max. 0.01%
Color on dispatch (APHA, ASTM D 1209)	max. 10
Standard stabilization (ASTM D 3125)	15 ±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	Pungent
Density at 25^{0}C (DIN 51757)	0.898 g/cm^3
Refractive index n_d at 20^{0}C (DIN 53169)	1.4185
Boiling point (DIN 51751)	approx. 148^{0}C
Freezing point	approx. –64^{0}C
Viscosity at 20^{0}C	0.92 mPa.S
Specific heat of liquid	1.93 kJ/kg^{0}C
Heat of evaporation at boiling point	292 kJ/kg
Heat of polymerization	504 kJ/kg
Vapor pressure at 0^{0}C	1.4 mbar
at 20^{0}C	5.4 mbar
Temperature rating for electrical equipment (VDE 170/171)	T 2 (200 – 300^{0}C)

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Applications

Butyl acrylate forms homopolymers and copolymers. Copolymers of Butyl 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. Butyl 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 Butyl acrylate that contains up-to-date information on all questions relevant to safety.

Labelling

Refer to Material Safety Data Sheet of Butyl acrylate for information on labeling.

Industrial Hygiene

Refer to Material Safety Data Sheet of Butyl acrylate for information on industrial hygiene.

Storage & Handling

In order to prevent polymerization, 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 35^0C. 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 Butyl 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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