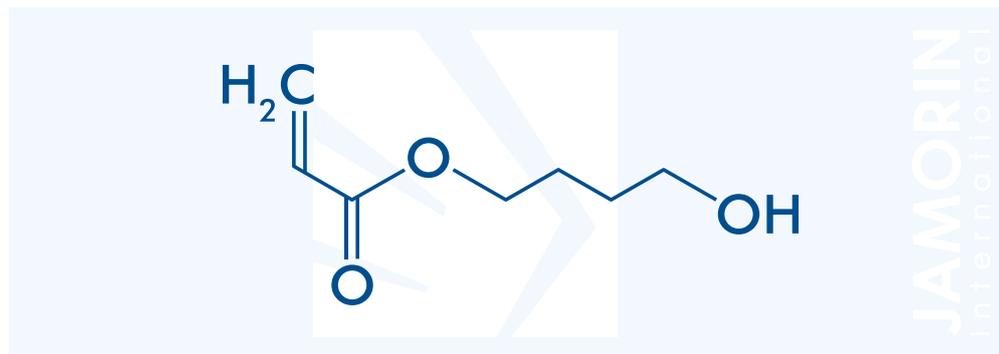


Acrylic acid ester, for manufacturing polymers and for use as a feed stock for syntheses



CAS # 2478-10-6

EINECS # 219-606-3

MOLECULAR FORMULA

$C_7H_{12}O_3$

MOLAR MASS

144.2 g/mol

PRODUCT SPECIFICATION

Properties	Typical	Method
Assay	min 97 %	Gas chromatography
Butanedioldiacrylate	max 0.5 %	Gas chromatography
Water content	max 0.1 %	ASTM E 203
Acid content (calc. as acrylic acid)	max 0.3 %	ASTM D 1613
Color on dispatch	max 50	APHA, ASTM D 1209
Standard stabilization	300 ±50 ppm MEHQ	HPLC or ASTM D 3125

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

Properties	Typical	Method
Appearance	Clear, colorless or slightly yellowish	
Physical form	Liquid	
Odor	Odor-free	
Density @ 25 °C	1.039 g/cm ³	
Refractive index n_d @ 20 °C	1.454	
Boiling point	236 °C	
Freezing point	< -80 °C	
Viscosity @ 20 °C	10.7 mPa · s	
Vapor pressure @ 20 °C	0.005 mbar	
Vapor pressure @ 80 °C	1.3 mbar	
Vapor pressure @ 100 °C	4.6 mbar	

Jamorin has Material Safety Data Sheets (MSDS) for each products. The MSDS contain relevant information needed to safeguard your employees from any known safety and health hazard related with our products. Jamorin provides you MSDS for all the products you evaluate or buy. It is also necessary that you get copies of the MSDS of the other raw materials recommended in our technical bulletins from the suppliers. Your employees should have ready access to and to be trained well on the proper use of MSDS

APPLICATIONS

4-Hydroxybutyl Acrylate (4-HBA) forms homopolymers and copolymers. Copolymers of 4-Hydroxybutyl Acrylate (4-HBA) 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. 4-Hydroxybutyl Acrylate (4-HBA) is also a very useful feed-stock for chemical syntheses, because it readily undergoes addition reactions with a wide variety of organic and inorganic compounds.

FEATURES & BENEFITS

4-Hydroxybutyl Acrylate (4-HBA) can be used to impart the following properties to polymers:

- Crosslinking
- Adhesion
- Scratch resistance
- Weatherability
- Rheology modifier
- Low VOC

PROCESSING

4-Hydroxybutyl Acrylate (4-HBA) polymerizes very readily. It is therefore generally stabilized by using air as a blanket gas and by addition of 300 ppm hydroquinone monomethyl ether (MEHQ). It is only ever supplied in its stabilized form, because it can polymerize with explosive violence if it is not stabilized. It is not usually necessary to remove the stabilizer because its action can be compensated for by adding an excess of initiator.

STORAGE & HANDLING

In order to prevent polymerization, 4-Hydroxybutyl Acrylate (4-HBA) must always be stored under air, and never under inert gases. The presence of oxygen is required for the stabilizer to function effectively. 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. The storage temperature for 4-Hydroxybutyl Acrylate (4-HBA) should not exceed 25 °C. Under these conditions, a storage stability of six months can be expected upon delivery. If the storage temperature during storage is controlled to be less than 10 °C and the dissolved oxygen has been replenished a storage stability of 12 months can be expected upon delivery.

The preferred construction material for tanks and pipes is stainless steel. Carbon steel is also acceptable, although the formation of rust may be a problem with product quality (colour). Iron(III)-ions have been shown to be a weak polymerization initiator. If carbon steel is to be used, special procedures should be used to prepare the tank for use. Storage tanks, pumps and pipes should be earthed

SAFETY

A Safety Data Sheet has been compiled for 4-Hydroxybutyl Acrylate (4-HBA) that contains up-to-date information on questions relevant to safety.

PACKAGING

It can be purchased in bulk and 200L drum. Special packing can be arranged.

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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