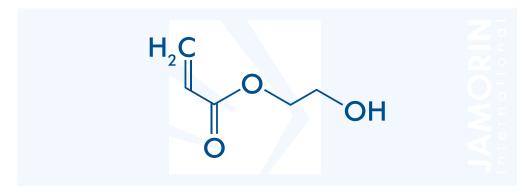


# 2-Hydroxyethyl Acrylate (2-HEA)

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



CAS # 818-61-1 EINECS # 212-454-9

**MOLECULAR FORMULA** C.H.O.

**MOLAR MASS** 

116.1 g/mol

## **PRODUCT SPECIFICATION**

Properties	Typical	Method
Assay	min 98.5 %	Gas chromatography
Ethylene glycol diacrylate content on dispatch	max 0.3 %	Gas chromatography
Water content	max 0.15 %	ASTM E 203
Acid content (calc. as acrylic acid)	2.5 mg KOH/g	ASTM D 1613
Color on dispatch	max 10	APHA, ASTM D 1209
Standard stabilization	250 ±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.

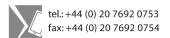
## **OTHER PROPERTIES**

Properties	Typical	Method
Appearance	Clear, colorless	
Physical form	Liquid	
Odor	Ester-like, mild pungent	
Density @ 25 °C	1.106 g/cm <sup>3</sup>	
Refractive index n <sub>d</sub> @ 20 °C	1.4511.454	
Boiling point	200 °C	
Flash point	101 °C	
Freezing point	< -60 °C	
Viscosity @ 25 °C	11.17 mPa · s	
Vapor pressure @ 21.4 °C	0.1 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











## 2-Hydroxyethyl Acrylate (2-HEA)

#### **APPLICATIONS**

2-Hydroxyethyl Acrylate (2-HEA) forms homopolymers and copolymers. Copolymers of 2-Hydroxyethyl Acrylate (2-HEA) 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-Hydroxyethyl Acrylate (2-HEA) is also a very useful feedstock for chemical syntheses, because it readily undergoes addition reactions with a wide variety of organic and inorganic compounds.

#### **FEATURES & BENEFITS**

2-Hydroxyethyl Acrylate (2-HEA) can be used to impart the following properties to polymers:

- Chemical resistance
- Crosllinking
- Adhesion
- Scratch resistance
- Weatherability
- Rheology modifier
- Low VOC

#### **STORAGE & HANDLING**

In order to prevent polymerization, 2-Hydroxyethyl Acrylate (2-HEA) 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 temeprature 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 «first-in-first out» principle. For extended storage periods over 4 weeks it is advisable to replenish the dissolved oxygen content.

Over time the content of Ethylene Glycol Diacrylate slowly increases. If this trace component is relevant to your process, the material should be consumed within latest 6 months after receipt of the material.

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). Iro(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 2-Hydroxyethyl Acrylate (2-HEA) 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.

**DISCLAIMER** «It is in good faith that we offer suggestions on the use of our products and these are based on knowledge we believe are correct and dependable. However, these are with no guarantee as process and conditions in the use of our products may vary and are beyoned our control. We strongly recommend that users of our products verify the appropriateness of our suggestions before using them on a commercial scale».

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