

# Ethyl Acrylate

## Description

Ethyl Acrylate is a flammable, colorless, transparent liquid that is easily miscible in organic solvents.

Depending on the monomer selection and chemical reaction conditions, various physical properties can be realized after polymerization.

Properties	Unit	Ethyl Acrylate	Method
<b>Specification</b>			
Purity	wt %	≥99.5	Gas chromato.
Color	APHA	≤10	ASTM D1209
Water Content	wt %	≤0.05	ASTM D1364
Inhibitor		10~20	
Acidity		≤50	
Specific Gravity	20/4°C	0.919~0.923	ASTM D1298
<b>Typical Properties</b>			
Boiling Point		99	
Freezing Point		-71	
Refractive Index	nD	1.404	25°C
Heat Capacity	cal/g°C	0.47	20°C
Heat of Polymerization	cal/g	186	
Solubility in Aqueous	wt %	1.5	25°C
Solubility aq. in subs	wt %	1.5	25°C
Homopolymer Tg	°C	-24	

## Summary

Synonym :

Acrylic acid,ethyl ester

2-Propenoic acid,ethyl ester

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CAS No : 140-88-5

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EINECS No : 205-438-8

## Chemical Formula



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## Note

Ethyl acrylate is used in the composition of copolymers with a wide range of industrial applications.

- Resins and emulsion polymers or dispersions for non-woven fabrics, textiles and leather
- Cleaning and floor waxing products
- Synthetic rubbers and latexes, plastics and synthetic resins
- Thickeners or rheology modifiers

Ethyl acrylate is able to addition reaction to the double bond and to polymerize and copolymerize.

Some copolymer reactivity ratios  $r_1$ ,  $r_2$  of Ethyl acrylate (M1) with various monomers (M2) was calculated from the Alfred & Price equation.

Styrene :  $r_1 = 0.41$   $r_2 = 0.85$

Methyl methacrylate :  $r_1 = 0.67$   $r_2 = 1.32$

Vinyl acetate :  $r_1 = 18.10$   $r_2 = 0.04$

## Precaution

The standard inhibition is 15 ppm Monomethyl Ether of Hydroquinone (MEHQ).

With this inhibitor, the product should be stored at a temperature of no more than 35°C and away from light.

It must also be stored under air atmosphere, as the presence of oxygen is essential to activate the stabilizer. Ethyl acrylate is a highly flammable product, and the usual precautions must be taken in handling it.

For more information, please refer a material safety data sheet.

## Package

Ethyl acrylate is delivered :

- 20MT with ISO tank

- 180Kg with steel drum

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