

# Methyl Acrylate

## Description

Methyl acrylate is a colorless, transparent, highly flammable liquid.  
It is a volatile liquid, slightly soluble in water and completely soluble in alcohol.

Properties	Unit	Methyl Acrylate	Method
<b>Specification</b>			
Purity		≥99.5	
Color		≤10	
Water Content		≤0.05	
Inhibitor		10~20	
Acidity		≤50	
Specific Gravity		0.953~0.958	
<b>Typical Properties</b>			
Boiling Point		80.1	
Freezing Point		-76.5	
Refractive Index	nD	1.401	25°C
Heat Capacity	cal/g°C	0.48	20°C
Heat of Polymerization	cal/g	235	
Solubility in Aqueous	wt %	4.94	25°C
aq.in subs	wt %	2.65	25°C
Homopolymer Tg	°C	10	

## Summary

Synonym :  
Acrylic acid,methyl ester  
Methyl 2-Propenoate  
2-Propenoic acid,methyl ester  
/  
CAS No : 96-33-3  
/  
EINECS No : 202-500-6

## Chemical Formula

## Note

Methyl acrylate is used in the composition of polymers and copolymers with a wide range of industrial applications.

- Acrylic fibers, Textile sizing agent
- Resins and dispersions for paints, varnishes, inks, glues, adhesives
- Emulsion polymers or dispersions for non-woven fabrics, textiles, paper
- Cleaning and floor waxing products
- Plastic, and synthetic resins, synthetic rubbers and latexes

Methyl 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 :  $r_1 = 0.14$   $r_2 = 0.78$

Methyl methacrylate :  $r_1 = 0.50$   $r_2 = 1.91$

Vinyl acetate :  $r_1 = 9.98$   $r_2 = 0.05$

## Precaution

The standard inhibitor level 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 maintain the inhibitor effectiveness.

Methyl acrylate is a highly flammable product, and the appropriate precautions must be taken in handling it.

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

## Package

Methyl acrylate is delivered:

- 20MT with ISO tank

- 180Kg with steel drum

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