

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
Specification			
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	0.953~0.958	ASTM D1298
Typical Properties			
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
Solubility 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

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CAS No : 96-33-3

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EINECS No : 202-500-6

Chemical Formula



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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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