

Vinyl Acetate Monomer

VAM
Vinyl Acetate
Acetic Acid, Vinyl Ester
Acetic Acid, Ethenyl Acetate
Ethenyl Ester
1-Acetoxyethylene
 $\text{CH}_3\text{COOCH}=\text{CH}_2$

GENERAL DESCRIPTION

Vinyl acetate monomer is a colorless liquid with a low flash point. It has a characteristic odor. Vinyl acetate monomer is soluble in most organic solvents including chlorinated solvents, but is not soluble in water. Vinyl acetate monomer is easily polymerized with acrylate esters to produce polymers. It is inhibited with hydroquinone.

TYPICAL PROPERTIES ⁽¹⁾

Molecular Weight	86.09
Apparent Specific Gravity at 20/20°C	0.9338
$\Delta\text{SP Gr}/\Delta\text{T}$ at 10 to 40°C, per °C	0.00128
Boiling Point at 760 mm Hg, °C	72.9
at 300 mm Hg, °C	47.0
at 10 mm Hg, °C	-18
$\Delta\text{BP} / \Delta\text{p}$, 750 to 770 mm Hg, per mm Hg	0.040°C
Vapor Pressure at 20°C, mmHg	92
Absolute Viscosity at 0°C, cP	0.54
Absolute Viscosity at 20°C, cP	0.41
Absolute Viscosity at 40°C, cP	0.33
Surface Tension at 25°C, dynes per cm	23.8
Freezing Point, °C	-92.8
Critical Data	
Temperature, °C	246
Pressure, atm	39.1
Volume, liter per mole	0.27
Heat of Vaporization at 1 atm	8.9
High Heat of Combustion, 25°C, BTU per lb	10,374
Refractive Index, n 20°C	1.3953
$\Delta n/\Delta\text{T}$ at 20 to 40°C, per °C	0.00053
Solubility in Water at 20°C, %by wt	2.0
Solubility of Water In at 20°C, %by wt	1.0
Solubility in Organic Solvents at 25°C	
Acetone, Benzene, Ethyl Ether Heptane,	Complete
Methanol, Carbon Tetrachloride	
Vinyl Acetate ⁽²⁾⁽³⁾ , %by wt, minimum	99.9

DISCLAIMER:

The information contained in this datasheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about the product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

TYPICAL PROPERTIES ⁽¹⁾

Acidity, % by wt, maximum, calculated as acetic acid	0.005
Nonvolatile Matter, % by wt, maximum	0.015
Hydroquinone Inhibitor, ppm	3-5
Acetaldehyde, % by wt, maximum	0.010
Water, % by wt, maximum	0.04
Color, Platinum-Cobalt, maximum	5
Suspended Matter	Sustantially Free
Specific Gravity at 20/20°C	0.9335 to 0.9345
Distillation at 760mm Hg, °C,	
lbp, minimum	72.3
Dp, maximum	73.0

APPLICATIONS

Vinyl acetate monomer is a chemical building block used for a wide variety of industrial and consumer products. Polyvinyl acetate is used to produce paints, adhesives, coatings for flexible substrates and sizing for polyester fiber-fill insulation textiles. Polyvinyl acetals are used to produce insulation for magnetic wire, inter-layers for safety glass, wash primers and coatings. Ethylene vinyl acetate co-polymers are used to produce flexible films, coatings, adhesives, molding and insulation. Ethylene vinyl alcohol can be used to produce gas barrier layers in co-extruded packaging.

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