

2-Ethylhexyl Acrylate, 2-EHA 2-Ethylhexyl prop-2-enoate

$$H_2C$$
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 CH_3
 CH_3

Introduction

2-Ethylhexyl Acrylate (2-EHA) is a clear, colorless liquid with a strong, sweet odor. It's comprised of a polymerizable vinyl functional group on one end and a branched 8 carbon containing ester on the other end. The branched side chain is amenable to polymeric chain entanglement, allowing for specific properties to be incorporated into the polymer or copolymer. It is slightly miscible with water, soluble in most organic solvents and has relatively low volatility. It's vapor is heavier than air.

Applications

2-Ethylhexyl Acrylate can be homopolymerized into Poly2-EHA or co-polymerized with amides, acrylonitrile, esters, acrylic acid, styrene and vinyl chloride. These products exhibit flexibility, good adhesiveness, toughness, weatherability and desirable low temperature qualities.

Poly2-EHA is a leathery and flexible polymer frequently found in adhesives and sealants. Polymers containing 2-EHA exhibit the following characteristics.

- Toughness, flexibility, durability, elasticity, clarity
- Weather resistance, moisture resistance, chemical resistance
- Good low temperature properties, can be copolymerized with other acrylates.
- Low volatility and low odor.
- 2-Ethylhexyl Acrylate monomer is used in the manufacture of elastomers, leather finishing materials, adhesives, sealants, fibers, plastics and textiles.

Physical Properties

Property	Value
Formula weight	184.3
Appearance	Clear, colorless liquid
Odor	Strong ester, pungent, fruity odor
Specific gravity at 25 °C	0.880
Refractive index at 25 °C	1.433
Viscosity, cps at 25 °C	1.7
Boiling point at 760 mmHg	214 °C
Freezing point	-90 °C
Solubility in water	Slightly Soluble
Flash point, °C	79
Tg of homopolymer, °C	-70
Vapor Pressure, mm at 20 °C	0.15
Vapor Density, (air=1)	6.4
Autoignition Temperature, °C	250

Typical Composition

Property	Standard Specification	Typical Value
2-EHA assay	99.5% Min	99.7 wt%
MEHQ 15, 50, 105 ppm	10–20, 40–60, 90-120 ppm	Target
Water	0.05% Max	0.01%
Color	10 Max	4
Acidity as Acrylic Acid	0.009% Max	0.001%

Handling **Precautions**

Before using this product, consult the Safety Data Sheet (SDS) for details on product hazards, health hazards, recommended handling precautions and product storage.

Storage

Consult the Safety Data Sheet (SDS). The monomer shelf life informs how long the material will remain stable under normal conditions. Never store or use expired material.

Health and Enivronmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area. For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

Product Stewardship

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Customer Notice

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Contact:

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