



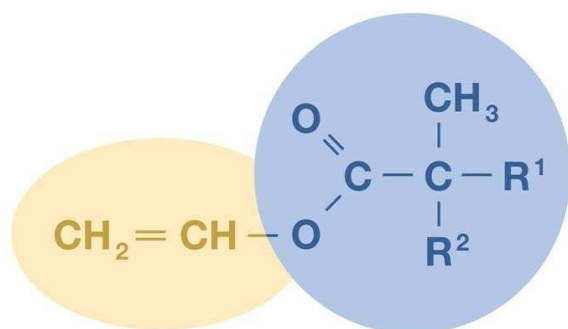
Technical Data Sheet

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Veova™ 10 Monomer

Description

Veova™ 10 monomer is the vinyl ester of Versatic™ acid 10, a synthetic saturated monocarboxylic acid with a highly branched structure containing ten carbon atoms. Its structure may be represented as:



R¹ and R² are alkyl groups containing a total of 7 carbon atoms. Veova 10 monomer, a low viscosity liquid with a typical mild ester odor, is a very attractive monomer for the manufacture of polymers through reactions of the vinyl group. It imparts a combination of flexibility (medium to low Tg), hydrophobicity and very good chemical and UV resistance.

Applications

Veova 10 monomer is widely used as a modifying co-monomer in the manufacture of vinyl acetate based polymer latices. Veova 10 monomer is also used for the production of Veova 10/(meth)acrylic latices and solution polymers.

Examples of Veova 10 monomer based polymer applications are:

1. Decorative emulsion paints, plasters and renders.
2. Industrial paints and coatings such as anti-corrosion paints, wood coatings and varnishes and coatings for polyolefins.
3. Latices and spray-dried redispersible powders for mortar admixtures.
4. Latices for adhesives including Pressure Sensitive Adhesives, construction and wood adhesives.
5. Reactive diluent for specific heat-cured unsaturated polyesters.

Sales Specification

Property	Test method	Unit	Value
Appearance	ASTM D4176	-	Clear liquid, free from suspended matter
Color	ASTM D1209	Pt-Co	15 max.
Density at 20°C	ASTM D4052	kg/m ³	875.0-885.0
Refractive index, n _D ²⁵	ASTM D1218		1.432-1.437
Acid Value	ASTM D1639	mg KOH / g	1.0 max.
Water content	ASTM E203	% (m/m)	0.1 max.
Vinyl unsaturation*	SMS 2687	mol/kg	4.85-5.10

*Vinyl unsaturation in moles/kg x 16 = Bromine number in grams of Br/100g

Typical Properties

Property	Test method	Unit	Value
Molecular formula (theoretical)			C ₁₂ H ₂₂ O ₂
Molecular mass (theoretical)			198
Added inhibitor (hydroquinone monomethyl ether)	LPM 3112	mg/kg	5 +/-2
Kinematic viscosity at 20°C	ASTM D445	mm ² /s	2.2
Specific heat at 20°C	ASTM E1269	kJ/kg °C	1.97
Latent heat of vaporisation at 20°C		kJ/mol	48.9
Boiling range	ASTM D1078	°C	133-136*
Flash point (PMCC)	ASTM D93	°C	75
Pour point	ASTM D97	°C	Below -60
Solubility in water at 20-80°C		% (m/m)	<0.1
Solubility of water in monomer at 20-80°C		% (m/m)	0.05
Miscibility with vinyl acetate			Completely miscible
Specific heat of polymerisation	ASTM E1269	kJ/mol	96
Copolymerisation parameters**, e Q			-0.53 0.026
Glass transition temperature (Tg) of homopolymer *** (vinyl acetate homopolymer=32°C)	ASTM D3418	°C	-3

* measured at a reduced pressure (100 mm Hg)

** Using constants according to Young, J.Pol.Sci. 54,411, e=-0.22, Q = 0.026 for Vinyl acetate

*** By differential scanning calorimetry (onset value 20°C per minute).

Test Methods

ASTM Standards are published by the American Society for Testing and Materials, 100 Barr Harbor Drive, west Conshohocken, PA 19428-2959, USA.

SMS and LPM methods mentioned are available from Hexion Inc. .

Transportation and Storage

Information on transport, storage, suitable materials for tank construction, etc, is available from Hexion, via local representative or distributor. VeoVa 10 Monomer should be stored at ambient temperature (min 5 °C - max 50 °C) in conditions such that moisture is excluded, in the original containers kept tightly closed. Under these conditions the shelf life should be a three years starting from the manufactured date.

Handling Precautions

For more detailed information on all aspects relating to Health, Safety and Handling, reference should be made to the Safety Data Sheet of VeoVa 10 monomer, which is available from your local Hexion representative or distributor.

Contact Information

For contact information about this product, go to www.hexion.com and visit Versatic Derivatives product pages. Here you will have option to choose your region to find a representative in your area.

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