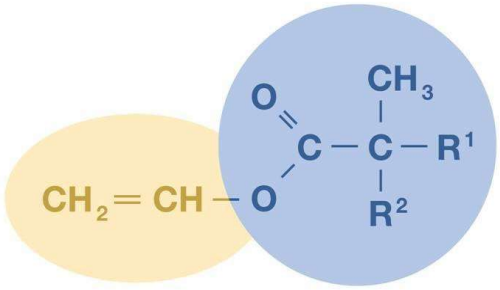
Technical Data Sheet

VeoVa 9 Monomer

Description

VeoVa™ 9 Monomer is the vinyl ester of Versatic™ Acid 9, a synthetic saturated monocarboxylic acid with a highly branched structure containing nine carbon atoms. Its structure may be represented as:



R^1 and R^2 are alkyl groups containing a total of 6 carbon atoms. VeoVa 9 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 high polymer hardness (high glass transition temperature), hydrophobicity and very good chemical and UV resistance.

Applications

VeoVa 9 Monomer can be used as a modifying co-monomer in the preparation of vinyl acetate based polymer latices, which are used for the manufacture of specialty emulsion paints. VeoVa 9 Monomer is also used as a co-monomer with acrylates for the production of emulsion, solution and bulk polymers.

Examples of VeoVa 9 vinyl ester based polymer applications are:

- Specialty emulsion paints, such as glossy emulsion paints and varnishes, water repellant coatings, anti-corrosion paints and coatings for polyolefins,
- Acid or anhydride-cured acrylic automotive coatings,
- Acrylic powder coatings.

On the basis of its typical performance properties VeoVa 9 Monomer is considered interesting for exploring a range of high-quality and industrial paint applications additional to those already listed above.

Sales Specifications

Property	Value	Unit	Test Method
Acid value	1.0 max.	mg KOH/g	ASTM D1639
Appearance	Clear liquid, free from suspended matter		ASTM D4176
Color	30 max.	Pt-Co	ASTM D1209
Density at 20°C	870.0 - 900.0	kg/m³	ASTM D4052
P-Methoxyphenol Content	5±2	mg/kg	LPM 3112
Refractive Index nD25	1.432 - 1.445		ASTM D1218
Water Content	0.1 max.	% (m/m)	ASTM E203

Typical Properties

Property	Value	Unit	Test Method
Boiling Range	185 - 200	°C	ASTM D1078
Copolymerisation Parameters*	e -0.640; Q 0.028		
Flash Point (PMCC)	69	°C	ASTM D93
Glass Transition Temperature of Homopolymer (Tg) ** (vinyl acetate homopolymer = 32°C)	70	°C	ASTM D3418
Kinematic Viscosity at 20°C	2.1	mm^2/s	ASTM D445
Latent Heat of Vaporisation at 20°C	45.6	kJ/mol	
Miscibility with Vinyl Acetate	Completely miscible		
Molecular Formula	C11H20O2		
Molecular Mass	184		
Solubility in Water at 20-80ºC	< 0.1	% (m/m)	
Solubility of Water in Monomer at 20-80ºC	0.06	% (m/m)	
Specific Heat at 20°C	1.93	kJ/kg °C	ASTM E1269
Specific Heat of Polymerisation	96	kJ/mol	ASTM E1269
Vinyl Unsaturation	5.4	mol/kg	SMS 2687

* *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 20ºC 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 Europe B.V.

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

9 Monomer, which is available from your local Hexion representative or distributor.

Transportation and Storage

Information on transport, storage, suitable materials for tank construction, etc, is available from Hexion, via local representative or distributor.

VeoVa 9 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.

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.