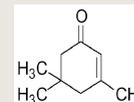


Product information

VESTASOL[®] IP

3,5,5-TRIMETHYL-2-CYCLOHEXEN-1-ONE



GENERAL DESCRIPTION

VESTASOL[®] IP is an unsaturated cyclic ketone of a high degree of purity. It consists essentially of a-Isophorone (3,5,5-Trimethyl-2-cyclohexen-1-one) with up to 3 % of the b-isomer (3,5,5-Trimethyl-3-cyclohexen-1-one). Isophorone is a waterwhite liquid having the typical odor of cyclic ketones.

SPECIFICATION

Property	Value	Unit	Test method
Appearance	clear		visual
Color (Hazen)	≤ 50		DIN ISO 6271/ ASTM D 1209
Purity (isomer mixture)	≥ 99,0	% by weight	Gas chromatography
Water content	≤ 0,1	% by weight	DIN 51 777 / ISO 760
Acid content (calc. as acetic acid)	≤ 0,01	% by weight	ASTM D 1613

TYPICAL DATA

Property	Value	Unit	Test method
Molecular weight (C ₁₀ H ₁₈)	138.25	g/mol	-
Solidification point	approx. – 8	°C	DIN ISO 3016
Viscosity at 20°C	approx. 2.6	mPa s	DIN 53 015
Solubility parameter at 25°C	17.9	(J/cm ³) ^{1/2}	-
Heat of evaporation at b.p.	approx. 42.4	kJ/mol	-
Vapor pressure at 20°C	0.4	hPa	-
Evaporation number (diethyl ether = 1)	approx. 330		DIN 53 170
Flash point	approx. 85	°C	DIN EN ISO 2719
Refractive index at 25°C	approx. 1.476		DIN 51 423
Density at 20°C	approx. 0.918-0.923	g/ml	DIN 51 757 / ASTM D 2111
Boiling range at 1013 hPa	210 - 216	°C	DIN 53 171

APPLICATION

VESTASOL® IP is miscible with organic solvents like aliphatic and aromatic hydrocarbons, alcohols, ethers, esters and ketones in any ratio.

As a result of its equal capacity to form dispersion, polar and hydrogen-bonding forces, VESTASOL® IP has an excellent dissolving power for numerous binders, resins and chemical products. It is therefore pre-dominantly employed as a highboiling solvent in the varnish, printing ink and plant protection agent industries.

Owing to its particular chemical structure, VESTASOL® IP is also used as a chemical raw material for the preparation of numerous products which are only accessible with difficulty in other ways.

In the varnish industry, VESTASOL® IP has particular importance as a high-boiling solvent for physically- and oven-drying varnishes. In air- or forced-drying industrial spraying and roller varnishes based on, for example, vinyl chloride-vinyl acetate copolymers, polyacrylates or alkyd resins, additions of VESTASOL® IP have a flow-improving and gloss-increasing effect.

VESTASOL® IP is also an excellent levelling agent in industrial stoving enamels based on saturated polyesters, polyacrylates and alkyd, epoxy and phenol-formaldehyde resins.

In the formulation of plant protection agents, VESTASOL® IP is a remarkable solvent. Due to its high miscibility with aromatic hydrocarbons, these solutions show excellent emulsifying properties and high stability, particularly in plant protection agents based on anilides and carbamates.

TRANSPORT AND PACKAGING

Europe: VESTASOL® IP is supplied in 190 kg non-returnable steel drums, as well as in rail cars and road tankers.

NAFTA: VESTASOL® IP is supplied in 419 pound non-returnable steel drums, as well as in rail cars and road tankers.

Asia: VESTASOL® IP is supplied in 190 kg non-returnable steel drums as well as in road tankers.

STORAGE

Isophorone can be stored in steel containers. Storage times up to 1 year in closed original containers are possible without influence to the product.

Storage temperature should not exceed 30 °C.

SAFETY AND HANDLING

Please refer to our Material Safety Data Sheet.

Marl, June 10, 2018; This data sheet replaces all former issues.

VESTASOL® is a registered trademark of Evonik Industrie AG or one of its subsidiaries.

Disclaimer

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