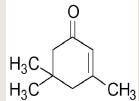


## Product information

# 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  $\alpha$ -Isophorone (3,5,5-Trimethyl-2-cyclohexen-1-one) with up to 3 % of the  $\beta$ -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)	$\leq 50$		DIN ISO 6271/ ASTM D 1209
Purity (isomer mixture)	$\geq 99,0$	% by weight	Gas chromatography
Water content	$\leq 0,1$	% by weight	DIN 51 777 / ISO 760
Acid content (calc. as acetic acid)	$\leq 0,01$	% 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 <sup>3</sup> ) <sup>1/2</sup>	-
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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