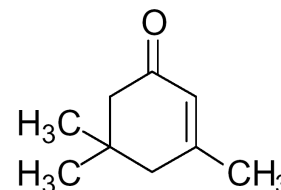


## VESTASOL<sup>®</sup> IP

### 3,5,5-Trimethyl-2-cyclohexen-1-one



43.13.294ew / 04.14

#### General description

VESTASOL<sup>®</sup> 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)	≤ 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 (calculated as acetic acid)	≤ 0.01	% by weight	ASTM D 1613
<b>Typical Data</b>			
Molecular weight (C <sub>9</sub> H <sub>14</sub> O)	138.21	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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> IP have a flow-improving and gloss-increasing effect.

VESTASOL<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> IP is supplied in 190 kg non-returnable steel drums, as well as in rail cars and road tankers.

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

Asia: VESTASOL<sup>®</sup> 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 Safety Data Sheet.

---

**Evonik Resource Efficiency GmbH**

Paul-Baumann-Str. 1  
45764 Marl  
Germany  
PHONE +49 2365 49-02  
FAX +49 2365 49-5030

[www.evonik.com/crosslinkers](http://www.evonik.com/crosslinkers)  
[www.evonik.com/coatings](http://www.evonik.com/coatings)  
E-MAIL [vesta@evonik.com](mailto:vesta@evonik.com)

**Evonik Corporation**

Reource Efficiency  
299 Jefferson Road  
Parsippany, NJ 07054-0677, USA  
PHONE +1 973 929-8000  
FAX +1 973 929-8460

[www.evonik.com/crosslinkers](http://www.evonik.com/crosslinkers)  
[www.evonik.com/coatings](http://www.evonik.com/coatings)  
E-MAIL [vesta@evonik.com](mailto:vesta@evonik.com)

**Evonik Speciality Chemicals Co., Ltd.**

55, Chundong Road  
Xinzhuang Industry Park  
Shanghai, 201108, PR China  
PHONE +86 21 6119-1000  
FAX +86 21 6119-1168

[www.evonik.cn/crosslinkers](http://www.evonik.cn/crosslinkers)  
[www.evonik.com/coatings](http://www.evonik.com/coatings)  
E-MAIL [vesta@evonik.com](mailto:vesta@evonik.com)

Replaces leaflet 43.13.294e / 10.03 and all former issues  
Marl, 23 April, 2014

is a registered trademark of Evonik Industries AG or one of its subsidiaries

This information and all further technical advice are based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used