

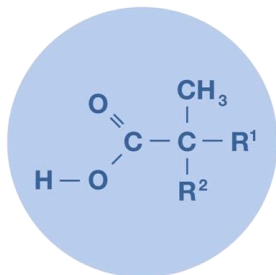
## Technical Data Sheet

Re-Issued on January 2015

### Versatic Acid 10

#### Description

Versatic™ Acid 10 is a synthetic, highly branched-C10 tertiary carboxylic acid. Versatic Acid 10 is also known as neodecanoic acid. Its structure may be represented as:



R<sup>1</sup> and R<sup>2</sup> are alkyl groups. Versatic Acid 10 contains a total of 10 Carbon atoms. Versatic Acid 10 is a water-like clear product that is liquid at ambient temperature.

#### Applications

Versatic Acid 10 is a key intermediate in the manufacture of a variety of products, which typically show excellent hydrolytic stability and resistance to various chemical agents. This is due to the steric hindrance created by the highly branched Versatic structure combined with the tertiary nature of its alpha-carbon atom. This is especially demonstrated in comparison with its linear and secondary-C10 equivalents.

Versatic Acid 10 can be used in its acid form, but for many applications the product is typically first converted into an acid chloride or metal salt. The acid chloride is produced by reaction with, for example, phosgene or PCl<sub>3</sub> and is used in the production of peroxides for polymer production. Metal salts, e.g. Cobalt, Copper or Zinc salts of Versatic Acid 10 are used in applications such as tire adhesives, paint driers, PVC heat stabilisers, chemical processing catalysts, unsaturated polyester cure catalysts, wood preservatives and fuel additives. Additionally, Versatic Acid 10 acid is a very effective metal extraction agent that is particularly suitable for Nickel. The acid can also be used as corrosion inhibitor in synthetic lubricants.

#### Sales Specification

<u>Property</u>	<u>Test method</u>	<u>Unit</u>	<u>Value</u>
Acid value	ASTM D1980	mg KOH/g	318 - 330
Colour Pt/Co	ASTM D1209	--	100 max.
Water	ASTM E203	% m/m	0.1 max.
Appearance	LPM 5037	--	Clear liquid
Neutrals	LPM 4301	% m/m	1 max.

**Typical Properties**

<b>Property</b>	<b>Test method</b>	<b>Unit</b>	<b>Value</b>
Odour			Strong
Density at 20°C	ASTM D1298	kg/L	0.91
Boiling range at 760 mm Hg	ASTM D1078	°C	270 - 280
Pour point	ASTM D97	°C	< -30
Vapour pressure at 20°C	ASTM D5191	kPa	< 0.02
Flash point (PMC)	ASTM D93	°C	129
Miscibility with water			Negligible
Purity	LPM 5108	% m/m	90 min.
Viscosity at 20°C	ASTM D445	mm <sup>2</sup> /s	45

**Test Methods**

ASTM Standards are published by the American Society for Testing and Materials, 100 Barr Harbor Drive, west Conshohocken, PA 19428-2959, USA or can be found under [www.astm.org](http://www.astm.org).

General information on LPM methods can be obtained upon request from Hexion Europe B.V.

**Transportation and Storage**

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

Versatic Acid 10 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 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 Versatic Acid 10, which is available from your local Hexion representative or distributor. The precautions advised therein should be strictly observed.

**Contact Information**

For contact information about this product, go to [www.hexion.com](http://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

® and ™ Licensed trademarks of Hexion Inc.

**DISCLAIMER**

The information provided herein was believed by Hexion Inc. ("Hexion") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Hexion are subject to Hexion's terms and conditions of sale. **HEXION MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY HEXION,** except that the product shall conform to Hexion's specifications. Nothing contained herein constitutes an offer for the sale of any product.

PDS-6018- (Rev.4/6/2016 10:28:31 AM)