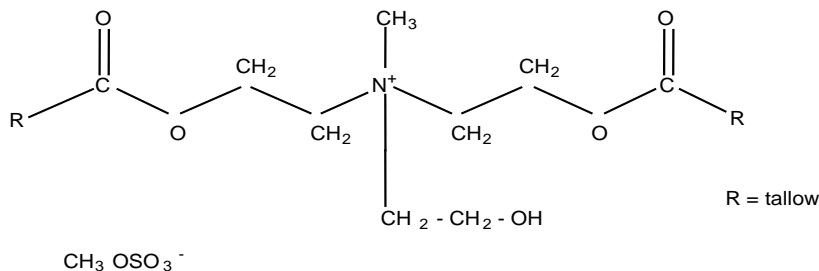


Product Bulletin

Product Name

STEPANTEX® VT-90

Chemical Structure



Chemical Description

Methyl bis[ethyl (tallowate)] -2- hydroxyethyl ammonium methyl sulfate

CAS Registry No.

157905-74-3

Applications

STEPANTEX VT-90 is a high-quality fabric softener quaternary for use in household and commercial products. It can be used in a full range of dispersion concentrations with excellent storage stability and formulation capabilities. STEPANTEX VT-90 will produce 3 - 20% solids dispersions easily. These dispersions exhibit instant cold water dispersability and provide excellent softening. Under certain conditions, STEPANTEX VT-90 can make up to 25% dispersions. STEPANTEX VT-90 offers good rewet and is non-yellowing.

Typical Properties

Appearance at 25°C.....	Off-white paste
pH, 5% in water.....	2.5
Solids, % by wt.....	90
Color, Gardner	3 max.
Density, g/ml (lbs/U.S. gal).....	0.982 (8.18)
Pour Point, °C (°F)	30 (86)
Minimum Handling Temperature (MHT), °C (°F)	45 (113)
Viscosity at MHT, cps.....	250
Flash Point, PMCC, °C (°F)	32 (90)
RVOC, U.S. EPA, % (Isopropanol).....	10
Preservative	Not required

Environmental Effects

STEPANTEX VT-90 is readily biodegradable. Additional information is available upon request.

Preservative Compatibility

Preservatives that are cationic compatible and are stable and effective at a pH between 2.5 and 4.5 should be compatible with STEPANTEX VT-90. Among isothiazolinone derivative preservatives, STEPANTEX VT-90 is only compatible with BIT.

Storage & Handling

Handle STEPANTEX VT-90 with care; use away from sparks and open flame. Use in a well ventilated area. Contact with the eyes and prolonged contact with the skin should be avoided. Use gloves and safety goggles when handling STEPANTEX VT-90.



Standard Packaging: STEPANTEX VT-90 is available in totes, drums or bulk quantities.

Storage & Handling

The color and odor of STEPANTEX fabric softener quaternaries are susceptible to degradation as a result of exposure to high temperatures, particularly in the presence of air.

It is recommended that STEPANTEX VT-90 be stored in stainless steel storage tanks of type 304L minimum, 316L is preferred. Also acceptable are Fiber Reinforced Plastic (FRP) with an Atlac 382 type lining. Tanks should be padded with a nitrogen gas blanket and equipped with conservation vents and flame arrestors. Tanks should be adequately insulated to maintain elevated temperatures. Generally, mixing is recommended to maintain homogeneity, either by a mechanical stirrer or recirculation loop.

Bulk storage facilities should be designed to maintain a minimum product temperature of 45°C (113°F) and a maximum temperature of 60°C (140°F). Hot water heating provided through No. 316L Stainless Steel heating coils is recommended. Steam heating through coils can be used.

No. 316L Stainless Steel centrifugal or positive displacement pumps should be used. Piping should be of No. 316L Stainless Steel, Schedule 40 or Steel Kynar lined P.V.F. Rubber hoses lined with Teflon or crosslinked polyethylene and equipped with No. 316L Stainless Steel fittings are recommended for loading and unloading. Contact with brass, copper, and aluminum components must be strictly avoided.

Workplace Exposure

Occupational exposure can occur primarily through skin contact or via inhalation of vapors and mists. Engineering controls, personal protective equipment, and other workplace practices should be used to control these exposures. See SDS for more information.

Clearances

The international inventories (country clearances) of STEPANTEX VT-90 can be found in Section 15 of the Safety Data Sheet (SDS). It is the responsibility of the formulator to review the chemical control regulations for each country where the end-product is intended to be sold or used. If you have any further questions regarding inventories, please contact North America Technical Service at techserv@stepan.com.

Product Stewardship

This product bulletin has been written in accordance with ACC's Product Stewardship guidelines.

Additional Safety Information

A Safety Data Sheet (SDS) is available upon request.



The information contained herein is based on the manufacturer's own study and the works of others and is subject to change without prior notice. The information is not intended to be all-inclusive, including as to the manner and conditions of use, handling, storage or disposal or other factors that may involve additional legal, environmental, safety or performance considerations. Nothing contained herein grants or extends a license, express or implied, in connection with any patents issued or pending of the manufacturer or others, nor shall be construed as a recommendation to infringe any patents. STEPAN COMPANY MAKES NO PRODUCT WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR USE, EXPRESS OR IMPLIED, AND NO OTHER WARRANTY OR GUARANTY, EXPRESS OR IMPLIED, IS MADE, INCLUDING AS TO INFORMATION REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY, ACCURACY, COMPLETENESS, OR ADEQUACY. Stepan Company (and its employees, subsidiaries and affiliates) shall not be liable (regardless of fault) to the vendee, its employees, or any other party for any direct, indirect, special, or consequential damages arising out of or in connection with the information provided herein, including in respect of its accuracy, completeness, adequacy, furnishing, use, or reliance upon such information. The vendee assumes and releases Stepan Company (and its employees, subsidiaries and affiliates) from all liability, whether in tort, contract or otherwise to the fullest extent possible under the relevant law.

Stepan 
Corporate Headquarters
Northbrook, Illinois 60062, U.S.A.
Phone: 847-446-7500
Fax: 874-501-2100
Website: www.stepan.com

For Technical Service Call:
Stepan North America **+1-800-745-7837**
Stepan Mexico **+55-11-5089-2208**
Stepan Quimica **+55-11-5089-2200**
Stepan Colombia **+571-636-2808**
Stepan Europe **+33-476-505-160**
Stepan Asia **+656-879-9855**
Stepan Philippines **+656-879-9855**

For Customer Service Call:
Stepan North America **+1-800-457-7673**
Stepan Mexico **+52-555-533-1967**
Stepan Quimica **+55-11-5089-2200**
Stepan Colombia **+57-6-8993125**
Stepan UK **+44-161-338-5511**
Stepan France **+33-476-50-51-00**
Stepan Philippines **+63-2-842-7951**