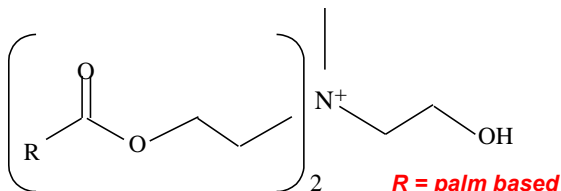


## Product Bulletin

Product Name

### STEPANTEX® SP-90

Chemical Structure



CAS Registry Number

91995-81-2

INCI Name

Dialkylester Ammonium Methosulfate

Applications

STEPANTEX SP-90 is a cationic surfactant ideal for producing fabric softeners and textile softening auxiliaries. This product can be used in household and institutional products. It can produce finished goods from regular to concentrates, with solids ranging from 3% to 20%. STEPANTEX SP-90 is sourced from vegetable based feedstock and provides the following benefits: good softening, good antistatic properties, very good rewetting, and is non-yellowing on clothing.

Typical Properties

Appearance at 25 °C.....	Pale yellow creamy paste
pH, 5% in water.....	3.30
Solids, % by w.....	90
Actives, meq/g.....	1.08
Color, Gardner.....	2
Pour Point, °C.....	29
Minimum Handling Temperature, °C.....	40 (104)
Flash Point, °C.....	<37 (<99)
Viscosity at MHT.....	370

Environmental Effects

STEPANTEX SP-90 is readily biodegradable.

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 SP-90.

Storage & Handling

Standard Packaging: STEPANTEX SP-90 is available in 190 kg open top epoxy-lined steel drums and in bulk quantities.

STEPANTEX SP-90 should be stored in stainless steel storage tanks preferably of type 316L. 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 re-circulation loop.

The color and odor of STEPANTEX SP-90 fabric softener quaternaries are susceptible to degradation as a result of exposure to high temperatures, particularly in the presence of air.



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). Avoid overheating or freezing.

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 cross-linked polyethylene and equipped with No. 316L stainless steel fittings are recommended for loading and unloading.

Handle STEPANTEX SP-90 with care. It is recommended that STEPANTEX SP-90 be stored in sealed containers kept in a well ventilated area away from sparks, fire, and open flame. Avoid overheating or freezing. Equipment should be grounded when transferring or using material. Normal safety precautions (i.e., gloves and safety goggles) should be employed when handling STEPANTEX SP-90. Contact with eyes, nose or prolonged contact with skin should be avoided. Wash thoroughly after handling STEPANTEX SP-90.

**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.

**Clearances**

All components of STEPANTEX SP-90 are listed in the following countries. The registration numbers for the active ingredients are included in parentheses: Australia (AICS 91995-81-2), Canada (DSL 157905-74-3), Europe (EINECS 295-344-3), Philippines (PICCS 91995-81-2), and United States (TSCA 157905-74-3).

**It is the responsibility of the end user to review the chemical control regulations for each country where the end product is intended to be sold or used.**

STEPANTEX SP-90 meets the U.S. EPA Safe Choice Program's surfactant screen and is listed on [www.cleangredients.org](http://www.cleangredients.org) (an on-line database for green formulators). For further information, visit [www.cleangredients.org](http://www.cleangredients.org). Additional Stepan ingredient listing can be found at [www.stepan.com](http://www.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 is available upon request.



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