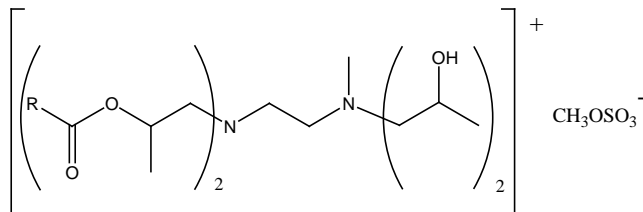


Product Bulletin

Product Name

STEPANQUAT® ML

Chemical Structure



RCO = oleic

Chemical Description

STEPANQUAT ML is the quaternary ammonium salt prepared by reacting oleic acid with Quadrol [N,N,N',N' – tetrakis (2-hydroxypropyl) ethylene-diamine], followed by quaternization with dimethyl sulfate.

CAS Registry No.

65059-61-2

INCI Name

Quaternium-82

Applications

Functional Properties

- Conditioning Agent for hair and skin applications (no “build-up” problem)
- Emulsifying agent for oil-in-water and water-in-oil emulsions
- Static Control

End Product Uses

- Hair Conditioners (regular, deep and leave-on types)
- Hair Styling Aids
- Lotions and Creams (O/W, W/O emulsion)

Typical Properties

Appearance at 25 °C.....	Clear viscous light amber liquid	
Viscosity at 25 °C, cps.....	8,300	
Viscosity at 10 °C, cps.....	30,500	
Density, g/ml (lbs/U.S. gal).....	0.979 (8.16)	
Actives, %	93 min.	
Flash Point (PMCC), °C (°F)	>110 (>230)	
Boiling Point, °C (°F)	120 (240)	
Freezing Point, °C (°F)	<4.4 (<40)	
pH, 1% aqueous.....	4.0	
Solvent	Propylene Glycol	
Solubility at 25 °C		
Water	Dispersible	Ethanol
Isopropanol	Soluble	IPP.....
Stability at 25 °C		
Acids	Stable	Heat.....
Bases	Stable	Freezing
		Stable

Environmental Effects

STEPANQUAT ML is relatively harmless orally (LD₅₀ >25 g/kg body wt). STEPANQUAT ML, at 3% solution, causes no eye irritation and only minimum skin irritation.



Workplace Exposure

Clearances

Formulation

Normal safety precautions (i.e., gloves and safety goggles) should be employed when handling STEPANQUAT ML. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling material.

It is recommended that STEPANQUAT ML be stored in sealed containers and kept at temperatures above 70 °F (21 °C). Avoid overheating or freezing. If material is frozen, mild heat and agitation are recommended to ensure the material is homogeneous before use.

Standard Packaging: STEPANQUAT ML is available in bulk and drums.

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.

The international inventories (country clearances) of STEPANQUAT ML 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 American Technical Service at techserv@stepan.com.

COLD MIXING PEARLESCENT HAIR CONDITIONER (Ref. #2200-66/FDB #802)

Table with 3 columns: Ingredients, Wt. % (as is), Function. Lists 8 ingredients including Deionized Water, Natrosol 250 HHRB, STEPANQUAT ML, AMMONYX CETAC, Lipocol L, Sodium Hydroxide, Citric Acid, and Fragrance.

Mixing Procedure:

Into a vessel equipped with agitator, add item #1. Start mixing. Into the vortex sprinkle in item #2. Add item #6 to raise pH to 7.5-8.0 and continue agitation, until all of item #2 has dissolved. Add item #7 to bring pH to 4.0-5.0. Add item #3, #4 and #5. Mix well (if not homogeneous heat to 25-27°C). Adjust pH is necessary.

Physical Properties:

Appearance at 25 °C Pearlescent lotion
pH, as is 3.35 – 4.50
Stability at 25°C and 50 °C Passed

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.



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.

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