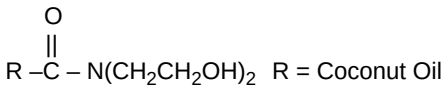
Stepan

Product Bulletin

NINOL® 49-CE

Product Name

Chemical Structure



Chemical Description

NINOL 49-CE is a whole coco methyl ester based amide produced via the 1:1 reaction.

CAS Registry No.

68603-42-9

INCI Name

Cocamide DEA

Applications

Functional Properties
- Viscosity Booster
- Foam Booster
- Hair Conditioning Agent
- Provides required viscosities at lower electrolyte levels

End Product Uses
- Bubble Bath
- Shampoos
- Hand Soaps
- Liquid Detergents

Typical Properties

Appearance at 25°C	Amber liquid	pH, 1% aqueous	9.4
Color, Gardner	3.0	Viscosity, cps at 25°C	995
Free Amine, as DEA, %	5.0	Viscosity, cps at 60°C	112
Boiling Point, °C (°F)	>150 (>302)	Flash Point (PMCC), °C (°F)	>94 (>201)
Cloud Point (as is), °C (°F)	-2 (28)	Density, g/ml (lbs/U.S. gal)	0.995 (8.3)
Pour Point, °C (°F)	9 (49)	RVOC, U.S. EPA, %	0
Freeze Point, °C (°F)	6 (43)	Preservative	Not required

Environmental Effects

Product is biodegradable. A detailed biodegradability statement is available upon request.

Health Effects

NINOL 49-CE is practically non-toxic orally (oral LD_{50} = 12.2 g/kg) and causes slight skin and minimal eye irritation at 10% active.

Storage & Handling

Normal safety precautions (i.e., gloves and safety goggles) should be employed when handling NINOL 49-CE. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling material.

It is recommended that NINOL 49-CE be stored in sealed containers and kept at temperatures not exceeding 105°F (41°C). As with all DEA amides, if overheating does occur, amide ester will be formed. To reverse the reaction, NINOL 49-CE should be stored at room temperature for approximately one week. Failure to do so may result in formulated products with decreased foam and low viscosity.

Standard Packaging: NINOL 49-CE is available in bulk and 55 gallon steel open head unlined drums (net weight 420 lb/190 kg).

Workplace

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.

Oct. 2015
Supersedes: July 2013

Clearances

All components of NINOL 49-CE are listed in the following countries; the registration numbers for the active ingredients are included in parentheses: United States (68603-43-9), Europe (EINECS 271-657-0), Japan (ENCS 8-311), Canada (DSL 68603-42-9), Australia (AICS 68603-42-9).China (EICS Part 3) and Korea (ECL Serial No. KE-03192). **It is the responsibility of the end user to review the chemical control regulations for each country.**

NINOL 49-CE is also approved for use under FDA 21 CFR 178.3860. NINOL 49-CE is available as Kosher Certified.

Formulations

CLEAR VISCOUS SHAMPOO

	Ingredients	Wt, % (as is)	Function
1.	STEPANOL® AM-V	35.00	Primary Surfactant
2.	AMPHOSOL® CA	12.00	Secondary Surfactant
3.	NINOL 49-CE	2.20	Viscosity & Foam Booster
4.	Propylene Glycol	1.00	Humectant
5.	Citric Acid (50%)	q.s.	pH Adjuster
6.	Fragrance, Dye, Preservative	q.s.	
7.	Ammonium Chloride	q.s.	Viscosity Adjuster
8.	D.I. Water	q.s. to 100.0	Solvent, Carrier

Mixing Procedure: Add first four components to D.I. Water and heat to 50°C (122°F) with mixing. Adjust pH to 6.0 - 7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Physical Properties:

pH (as is) ..... 6.0 - 7.0
Appearance at 25°C ..... Clear, yellow gel

CLEAR CONDITIONING SHAMPOO

	Ingredients	Wt, % (as is)	Function
1.	BIO-TERGE® AS-40	25.00	Primary Surfactant
2.	AMPHOSOL CA	5.0	Conditioning Agent
3.	NINOL 49-CE	2.5	Viscosity & Foam Booster
4.	Citric Acid (50%)	q.s.	pH Adjuster
5.	Fragrance, Dye, Preservative	q.s.	
6.	Sodium Chloride	q.s.	Viscosity Adjuster
7.	D.I. Water	q.s. to 100.0	Solvent, Carrier

Mixing Procedure: Add first four components to D.I. Water. Adjust pH to 6.0 - 7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Appearance at 25°C ..... Clear, yellow liquid
pH (as is) ..... 6.0 - 7.0
Viscosity Profile at 25°C:
as is ..... 40 cps
with 1.0% Sodium Chloride ..... 70 cps
with 3.0% Sodium Chloride ..... 1,490 cps
with 4.0% Sodium Chloride ..... 1,680 cps

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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