

Product Name

NINOL[®] 11-CM Detergent Grade Alkanolamide

Chemical Description

Coconut Diethanolamide, modified

CAS Registry No.

68603-42-9

Applications

Functional Properties

- High detergency
- High alkaline builder tolerance
- Moderate foam
- Excellent wetting ability
- Excellent thickening ability
- Soil dispersion and suspending ability
- Excellent lubricity
- Rust inhibition
- Biodegradability
- Emulsifier

End Product Uses

- Rinseable degreasers
- Waterless hand cleaners
- Chain lubricants
- Transportation cleaners
- Metal burnishing compounds
- Food processing plant cleaners
- I&I and Household hard surface cleaners

Typical Properties

Appearance at 25°C	Viscous liquid to paste	Actives, %.....	100
Moisture, %	0.2	Boiling Point, °C (°F)	>150 (>302)
Density, g/ml (lbs/U.S. gal)	0.991 (8.27)	Cloud Point, as is, °C (°F)	-7 (19)
pH, 1% aqueous.....	9.0	Color, Gardner.....	9 max.
Wetting Time (Draves 0.1%), sec.....	29	Flash Point (SETA), °C (°F).....	>94 (>201)
Surface Tension, (0.1%), dynes/cm	29.1	Pour Point, °C (°F).....	6 (43)
HLB	14	Viscosity, cps at 25°C.....	1155
Critical Micelle Concentration, g/L	1.48	Viscosity, cps at 60°C.....	138
Preservative	Not required	RVOC, U.S. EPA, %.....	0

Solubility

Water	Soluble	Aromatic Hydrocarbons	Soluble
Alcohol	Soluble	Chlorinated Hydrocarbons.....	Soluble
Glycol	Soluble		

Environmental Effects

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

Health Effects

NINOL 11-CM is practically non-toxic orally (LD₅₀ = 12.2 g/kg) and it causes moderate skin and minimal eye irritation at 30% active.

Storage & Handling

Normal safety precautions (i.e., gloves and safety goggles) should be employed when handling NINOL 11-CM. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling material.

It is recommended that NINOL 11-CM be stored in sealed containers and kept at temperatures not exceeding 105°F (41°C). Avoid overheating or freezing. As with all amides, if overheating does occur, amide ester will be formed. To reverse the reaction, NINOL 11-CM should be stored at room temperature for approximately one week. Failure to do so may result in formulation products with decreased foam and low viscosity.

Standard Packaging: NINOL 11-CM is available in bulk and in 55 gallon drums (net weight 420 lb/190 kg).

Storage & Handling

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

NINOL 11-CM is USDA authorized for general purpose cleaning and as an ingredient in lubricants. All components of NINOL 11-CM are listed in the following countries; the registration numbers for the active

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ingredients are included in parentheses: United States (TSCA 68603-42-9), Australia (AICS 68603-42-9), Canada (DSL 68603-42-9), China (IECSC 68603-42-9), Europe (EINECS 271-657-0), Japan (ENCS 8-311), Korea (ECL Serial No. KE-03192), New Zealand (NZIoC 68603-42-9), and Philippines (PICCS 68603-42-9). **It is the responsibility of the end user to review the chemical control regulations for each country.**

NINOL 11-CM is available as Kosher Certified.

Formulations

CONCENTRATED ALL-PURPOSE CLEANER

<u>Ingredients</u>	<u>Wt. % (as is)</u>	<u>Function</u>
1. NINOL 11-CM	10.0	Primary Surfactant
2. Na ₄ EDTA	2.0	Chelating Agent
3. BIO-SOFT® D-62 LT	5.0	Secondary Surfactant
4. STEPANATE® SXS	5.0	Hydrotrope
5. D.I. Water	q.s. to 100.0	Solvent, Carrier
6. Dye, fragrance	q.s.	

This formula can be used for all washable surfaces including walls, kitchen appliances, woodwork, bathrooms and fixtures, pots and pans, kitchen countertops, and vinyl and plastic surfaces. Recommended use dilution is 1 to 2 oz/gal.

Mixing Procedure: Combine ingredients 1-5 with mixing. Add dye and fragrance, if desired.

WATERLESS HAND CLEANER

<u>Ingredients</u>	<u>Wt. % (as is)</u>	<u>Function</u>
<u>PHASE I</u>		
1. NINOL 11-CM	5.0	Primary Surfactant
2. Oleic Acid	5.0	Thickener
3. Triethanolamine (85%)	1.5	Neutralizing Agent
4. Deodorized mineral spirits	45.0	Solvent, Carrier
<u>PHASE II</u>		
1. Glycerine	1.5	Humectant
2. D.I. Water	42.0	Solvent, Carrier
TOTAL	100.0	

Mixing Procedure: Mix ingredients in Phase I and heat to 70°C (158°F). Mix ingredients in Phase II and heat to 80°C (176°F). Add II to I with vigorous stirring. Where facilities are available for packaging products of a gel or paste consistency, the above formulation can be prepared at room temperature. This formulation is extremely effective in removing grease, tar, paint, etc.

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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