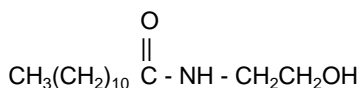


Product Bulletin

Product Name

NINOL[®] LMP

Chemical Description



NINOL LMP is a methyl ester based amide.

INCI Name

Lauramide MEA

CAS Registry No.

142-78-9

Applications

Functional Properties

- Viscosity booster
- Foam booster
- Foam stabilizer
- Stable at neutral, alkaline and acidic systems

End Product Uses

- | | | |
|----------------|-----------------|--------------------------|
| • Shampoos | • Bath Soaps | • Liquid Dish Detergents |
| • Hand Soaps | • Bath Products | • Toilet Bowl Blocks |
| • Bubble Baths | • Bar Soaps | • Laundry Detergents |

Typical Properties

Appearance at 25°C..... Free flowing off-white beads
Nonionic Content, % >93
Free Monoethanolamine, % <0.60
Melting Point, °C (°F) 83 (181)
Flash Point, °C (°F) >94 (>201)
Density, g/ml (lbs/U.S. gal)..... ~0.60 (4.90)

Biodegradability

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

Storage & Handling

Normal safety precautions (i.e. gloves, dust mask, and safety goggles) should be employed when handling NINOL LMP. Contact with the eyes and prolonged contact with the skin should be avoided. This product should be used in a well-ventilated area. Avoid inhaling dust. Wash thoroughly after handling material.

It is recommended that NINOL LMP be stored in sealed containers and kept in a cool, dry place to insure against agglomeration and any deterioration in color. Partly used drums should be promptly resealed with drum cover and accessory clamp after twisting and tying off the poly-bag liner.

Standard Packaging: NINOL LMP is available in 51 gallon fiber open head unlined drums (net weight 200 lb/90 kg).

Clearances

All components of NINOL LMP are listed in the following countries; the registration numbers for the active ingredients are included in parentheses: United States (TSCA 142-78-9), Europe (EINECS 205-560-1), Japan (ENCS 2-827), Canada (DSL 142-78-9), Australia (AICS 142-78-9), Philippines (PICCS 142-78-9), and China (IECSC 142-78-9)).

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PREMIUM LIGHT DUTY LIQUID FORMULATION

<u>Ingredients</u>	<u>Wt. %</u>	<u>Functionality</u>
1. BIO-SOFT® D-62	32.0	Primary Surfactant
2. STEOL® CS-460	19.0	Secondary Surfactant
3. STEPANATE® SXS	7.80	Hydrotrope
4. D.I. Water	q.s. to 100	Solvent, carrier
5. NINOL LMP	4.20	Foam Stabilizer
6. Sodium Hydroxide or Sulfuric Acid (50%)	q.s.	pH Adjuster
7. Preservative, Fragrance, Dye	q.s.	

Mixing Procedure:

In a suitable vessel equipped with heating and agitation, combine ingredients 1-4, and heat to 70°C (158°F). At 70°C (158°F), add NINOL LMP and mix until product is homogeneous. Cool to room temperature and adjust pH with sodium hydroxide or sulfuric acid to a pH of 6.5 to 7.0. Add preservative, fragrance and dye.

Properties:

Appearance at 25°C.....	Clear yellow liquid
Gardner Color	2
Viscosity, cps at 25°C	200-300
Miniplates washed	57
pH (as is).....	6.5-7.0

PREMIUM PEARLIZED SHAMPOO FORMULATION

<u>Ingredients</u>	<u>Wt. %</u>	<u>Functionality</u>
1. STEPANOL® AM	26.80	Primary Surfactant
2. STEPANOL WA-EXTRA	17.25	Secondary Surfactant
3. NINOL LMP	2.00	Viscosity Builder/Foam Stabilizer
4. GLYCOL MONOSTEARATE (HALLSTAR EGMS)	1.00	Pearlizing Agent
5. D.I. Water	q.s. to 100	Solvent, carrier
6. Citric Acid (50%)	q.s.	pH Adjuster
7. Preservative, Fragrance, Dye	q.s.	
8. Sodium Chloride	q.s.	Viscosity Adjuster

Mixing Procedure:

In a suitable vessel equipped with heating and agitation, combine ingredients 1, 2, and 5. Heat mixture to 75°C (167°F) and add NINOL LMP. Mix until dissolved. Add Glycol Monostearate and mix at 73.9-76.7°C (165-170°F) for 30 minutes. Cool mixture below 37.8°C (100°F) and adjust pH to 5.5-6.5 with citric acid. Add preservative. Add sodium chloride to adjust viscosity as desired. Add fragrance and dye as needed.

Properties:

Anionic Actives.....	18- 20%
Viscosity with 1.00% NaCl at 25°C	3500 cps
Appearance at 25°C.....	Viscous pearlescent liquid
pH (as is).....	5.5-6.5

A Material Safety Data Sheet is available upon request.

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Additional Safety Information



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