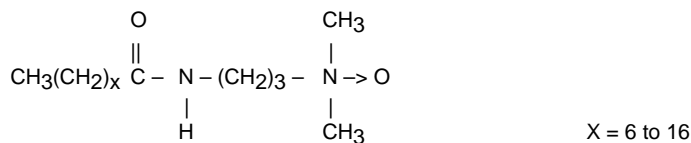


Product Bulletin

Product Name

AMMONYX[®] CDO SPECIAL

Chemical Structure



CAS registry No.

68155-09-9

INCI Name

Cocoamidopropylamine Oxide

Applications

Functional Properties

- Viscosity Modifier
- Foam Enhancer/Stabilizer
- Conditioner
- Reduces Static Electricity
- Detergent
- Anti-Irritant
- Corrosion Inhibitor
- Emollient

End Product Uses

- Shampoos
- Hand Soaps
- Bubble Baths
- Hair Conditioners
- Creams and Lotions
- Wax Strippers
- All-Purpose Cleansers

Typical Properties

Appearance at 25°C.....	Clear liquid	Amine Oxide (MW 307), %.....	32.5
Hydrogen Peroxide, %	0.18	Free Amine (MW 291), %.....	0.50
Color, Gardner	1.0	pH, as is	7.2
Viscosity at 10°C, cps	65	Pour Point, °C (°F)	-4 (25)
Viscosity at 25°C, cps	45	Flash Point (PMCC), °C (°F) ..	>94 (>201)
Density, g/ml (lbs/U.S. gal).....	0.99 (8.2)	RVOC, U.S. EPA, %	0
Preservative	Not required		

Biodegradability

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

Toxicity

The available toxicity data shows AMMONYX CDO SPECIAL to be slightly toxic orally to mammals (rats), (LD₅₀ = 4350 mg/kg). At 5% use level, AMMONYX CDO SPECIAL causes minimal eye and slight skin irritation.

Storage & Handling

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

It is recommended that AMMONYX CDO SPECIAL be stored in sealed containers and kept at temperatures not lower than 50°F (10°C) nor higher than 120°F (49°C). Avoid freezing or overheating.

Standard Packaging: AMMONYX CDO SPECIAL is available in bulk and 55 gallon drums (net weight 420 lb/190 kg).

Clearances

All components of AMMONYX CDO SPECIAL are listed in the following countries; the registration numbers for the active ingredients are included in parentheses: United States (TSCA 68155-09-9), Europe (EINECS 268-938-5), Canada (DSL 68155-09-9), Australia (AICS 68155-09-9), Korea (ECL Serial No KE-01074), Philippines (PICCS 68155-09-9), New Zealand (NZIoC 68155-09-9) and China (EICS Part 3).

AMMONYX CDO SPECIAL is available as Kosher Certified.

AMMONYX[®], AMPHOSOL[®], and BIO-TERGE[®] are registered trademarks of Stepan Company.



PEARLESCENT LIQUID HANDSOAP

Ingredients	Wt. % (as is)	Function
BIO-TERGE® AS-40	30.0	Primary Surfactant
AMMONYX CDO SPECIAL	2.3	Viscosity Modifier/Emollient
AMMONYX SO	2.5	Viscosity Modifier/Emollient
Hallstar EGDS (Hallstar Co.)	1.0	Opacifier
Sodium Chloride	q.s.	Viscosity Adjuster
Citric Acid (50%)	q.s.	pH Adjuster
Preservative, Dye & Fragrance	q.s.	Additives
D.I. Water	q.s. to 100.0	Solvent, Carrier

Mixing Procedure:

Add surfactants (BIO-TERGE AS-40, AMMONYX CDO SPECIAL and AMMONYX SO) to water. Heat with mixing to 50-60°C (122-140°F). Add Hallstar EGDS and mix until dissolved. Solution may be slightly hazy at this point. Cool to 30-35°C (86-95°F) with mixing and add remaining ingredients. Pearl will develop within 24 hours. For more pearl, Hallstar EGDS may be increased up to 2.0%. Adjust pH to 5.5 - 6.0 with citric acid. Viscosity can be modified by adding Sodium Chloride.

Physical Properties:

Appearance at 25°C..... Pearlescent liquid
pH 5.5-6.0

LOW pH GEL SHAMPOO

Ingredients	Wt. % (as is)	Function
BIO-TERGE AS-40	22.0	Primary Surfactant
AMPHOSOL® CG	14.0	Secondary Surfactant
AMMONYX CDO SPECIAL	4.6	Viscosity Modifier
Citric Acid (50%)	q.s.	pH Adjuster
Fragrance, Dye & Preservative	q.s.	Additives
D.I. Water	q.s. to 100.0	Solvent, Carrier

Mixing Procedure:

Add the first three components to D.I. Water and heat to 50°C (122°F). Adjust pH to 4.0 - 5.0 with Citric Acid. Cool to 40°C (104°F) and add fragrance, dye and preservative, if desired.

Physical Properties:

Appearance at 25°C..... Clear gel
pH 4.0-5.0

Additional Safety Information

A Material Safety Data Sheet is available upon request.

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