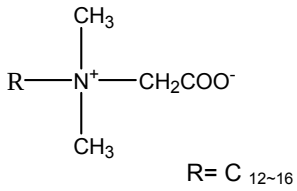
Stepan

Product Bulletin

AMPHOSOL® CDB Special

Product Name

Chemical Structure



R= C 12~16

CAS Registry Number

693-33-4 and 683-10-3

INCI Name

Cetyl Betaine

Applications

AMPHOSOL CDB Special is a mild surfactant derived from natural fatty methyl esters. It is a unique secondary surfactant designed to improve the viscosity response of sulfate-free* surfactant systems and traditional anionic systems. It is an enhanced amphoteric surfactant formulated for cold processing and easy handling. It can also be used as a mild primary surfactant, foam booster or static control agent. AMPHOSOL CDB Special is compatible with anionic, nonionic and cationic surfactants

Functional Properties

- Secondary or Primary Surfactant
- Viscosity Builder
- Foam Booster
- Antistatic Agent
- Compatible with Anionics, Nonionics and Cationics

End Product Uses:

- Bubble Baths
- Shampoos
- Baby Product
- Hand Soaps
- Cream Rinses
- Facial Cleansers
- Shower Gels
- Pet Shampoos
- Hair Conditioners
- Lotions

Typical Properties

Appearance at 25°C	Clear liquid	Boiling Point, °C (°F)	98.5 (209.3)
pH, 10% aqueous	6.0-7.5	Pour Point (as is), °C (°F)	-5.8 (21.6)
Viscosity at 25°C, cps	50-300	Freeze Point, °C (°F)	-8.5 (16.7)
Solids, % by Wt.	37	Cloud Point (Quick Cool) °C (°F)	-0.2 (31.7)
Total Actives, %	30	Flash Point (PMCC), °C (°F)	>94 (>201)
Color, Gardner	1	Sodium Chloride, %	6
Density, g/ml (lbs/U.S. gal)	1.026 (8.56)	Critical Micelle Concentration, mg/L	20.4
RVOC, U.S. EPA, %	0	Preservative	Not required

Biodegradability

AMPHOSOL CDB Special is readily biodegradable. Additional information available upon request.

Toxicity

AMPHOSOL CDB Special is slightly toxic orally in rats (≥ 5000 mg/kg) and it is mildly to moderately irritating to eyes and not irritating to skin at ≤ 10% solution.

June 2011
Supersedes:
May 2010

Storage & Handling

Normal safety precautions (i.e. gloves and safety goggles) should be employed when handling AMPHOSOL CDB Special. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling.

It is recommended that AMPHOSOL CDB Special be stored in sealed containers and kept at temperatures between 60°F-110°F (15.5°C-43.3°C). Avoid overheating or freezing. If material is frozen, mild heat and agitation are recommended to ensure the material is homogeneous before use.

Please Note: When stored in drums, AMPHOSOL CDB Special may experience gelling at the top of the container. Stepan recommends the use of the entire drum contents in the processing of your final product. If this is not possible, mild heat and agitation is recommended prior to use.

Standard Packaging: AMPHOSOL CDB Special is available in bulk and 55 gallon drums (net weight 450 lb/204 kg).

Clearances

All components of AMPHOSOL CDB Special are listed in the following countries; the registration numbers for the active ingredients are included in parentheses: United States (TSCA 693-33-4, 683-10-3), Australia (AICS 693-33-4, 683-10-3), Canada (DSL 693-33-4, 683-10-3), China (IECSC 693-33-4, 683-10-3), Europe (EINECS 211-748-4, 211-669-5), Japan (ENCS 2-2708, 2-1291), and Philippines (PICCS 693-33-4, 683-10-3).

Formulations

Naturally-Derived Moisturizing Body Wash

Ingredient (INCI Name)	% by Weight	Function
ALPHA-STEP® PC-48	16.20	Primary Surfactant
AMPHOSOL CDB Special	13.30	Secondary Surfactant
Mackernium 007 (Rhodia)	2.80	Conditioning Agent
Glycerine	1.50	Humectant
Fragrance	0.10	Additive
Kathon CG (Rohm and Haas)	0.05	Preservative
Citric acid, 25%	q.s.	pH adjuster
Dye	q.s.	Additive
Water	q.s. to 100.00	Carrier

*Sulfate-Free: Containing no alcohol sulfate or alcohol ether sulfate per INCI nomenclature.

Mixing Procedure:

Add Deionized water to suitable vessel and begin agitating. Slowly add Mackernium 007 and mix until the solution is clear. Add the first two surfactants. Mix well. Add Glycerine and mix until homogeneous. Add the Fragrance, Dye and Kathon CG and mix well. Adjust pH with Citric Acid to pH 5.2-5.8.

Physical Properties:

Appearance at 25°C ..... Clear liquid
pH, as is 5.2-5.8
Viscosity at 25°C, cps 7,000-9,000

Additional Safety Information

A Material Safety Data Sheet is available upon request.

Stepan

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