

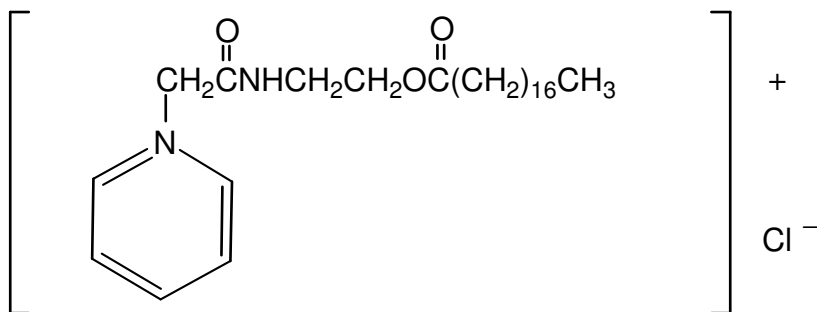
CATEMOL WPC

(INCI: Steapyrium Chloride)

CATEMOL[®] WPC can be chemically described as N(Stearoyl Colamino Formyl Methyl) Pyridinium Chloride. It is an off-white, crystalline, quarternary compound suggested for application as a cationic surface-active agent. It has found application:

- In acid pH stable (pH 6.0 Max.) formulations
- As an emulsifying, conditioning, cleansing and emollient useful in creams, lotions, hair conditioners, hair conditioning rinses and hair grooming aids.
- As a substantive quaternary with excellent after feel on hands and skin.

CATEMOL[®] WPC can be described as:



Trade Name	CATEMOL[®] WPC
INCI	Steapyrium Chloride
CAS Number	14492-68-3
EINCS Number	238-501-3

TYPICAL PROPERTIES
(Not to be taken as specifications)

Appearance @2.5°C	Off-White powder
Active Content, %	94.0
Free Fatty Acid, %	2.0
pH (1% aqueous)	3.5
Solubility @ 25°C in DI water*	2.5

*Solubility increases markedly as temperature increases. Inorganic salts decrease solubility

SOLUBILITY

WATER @2.5%	s(w)
PROPYLENE GLYCOL	s(w)
ETHANOL 200 Proof	s(w)
MINERAL OIL	i
ISODODECANE	i
ISOPROPYL MYRISTATE	i
CASTOR OIL	i
CYCLOMETHICONE	i
DIMETHICONE	i
ISONONYL ISONONANOATE	i
PENTAERYTHRITYL TETRAETHYLHEXANOATE	i

i = insoluble s = soluble (@ 5%) w=warm (50°C)

FORMULATIONS

Acid pH Moisturizing Lotion (ARL-16-68)

PHASE A	% w/w
PELEMOL GMB* (Glyceryl Monobenhenate)	4.0
PELEMOL P-810* (Propanediol Dicaprate/Caprylate)	5.0
PELEMOL DISM* (Diisostearyl Malate)	1.0
Cetyl Alcohol	1.0
PHOENOXIDE T* (Cetearyl Alcohol & Steareth-30 & Ceteh-10)	1.50
CATEMOL WPC* (Steapyrium Chloride)	0.50
PECOSIL AS-16* (Cetyl Dimethicone)	0.50
PHASE B	
Deionized Water	80.5
Propylene Glycol	6.0
PHASE C	
Lactic Acid to pH 4.5-5.5	qs
Microkill COS (Arch-Phenoxyethanol & Caprylyl Glycol & Chlorphenesin)	1.00
Total	100
* PHOENIX CHEMICAL, INC.	

Procedure:

1. Combine Phase A and stir. Heat to 75-80 C until all solids are dissolved.
2. Combine Phase B and heat to 75-80 C.
3. Add Phase A to Phase B with moderate agitation.
4. Cool to 30 C with moderate mixing.
5. Add Phase C with moderate mixing

Appearance: Off White Cream
Viscosity (Brookfield LVT #4/ 6 rpm): 6000 – 10000 cps.

**Hair Conditioning Spray Milk
For Damaged Hair (ARL-16-69)**

PHASE A	% w/w
Water	81.0
CATEMOL WPC* (Steapyrium Chloride)	1.0
PECOSIL FDM-30* (Perfluorononylethyl Carboxydecyl PEG-10 Dimethicone)	0.5
PHASE B	
PELEMOL GMB* (Glyceryl Monobehenate)	8.0
PELEMOL GTIS* (Triisostearin)	4.5
PELEMOL P-810* (Propanediol Dicaprate/Caprylate)	3.0
Stearic Acid (Triple Pressed)	1.0
PHASE C	
Microkill COS (Arch- Phenoxyethanol & Caprylyl Glycol & Chlorphenesin)	1.0
Total	100
* PHOENIX CHEMICAL , Inc.	

Procedure:

1. Combine Phase A and heat to 80 C. Mix until all solids are dissolved.
2. Combine Phase B and heat to 80-85 C until all solids are dissolved.
3. Add Phase B to Phase A with moderate mixing.
4. Cool with stirring to 40 C.
5. Add Phase C with moderate mixing.
6. Cool to 25-30 C with moderate mixing.

Appearance: Thin Milky Emulsion
Viscosity (Brookfield LVT #1/6 rpm): 120 - 220 cps.

Rev. 12-22-09
Created 3-2-09