



ELFAT – CTO™ (Cetyl Alcohol)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White waxy solid; flakes; pellets; granules
Physical Form	Granules
Odor	Faint odor
Molecular Weight (g/mol)	242.44
Density or Specific Gravity	0.818 g/mL at 25 °C (lit.)
Viscosity	3.394mm ² /s
Refractive Index	n _D 79 1.4283
Chemical Properties	
pKa	15.20±0.10(Predicted)
Thermal Properties	
Melting Point	48-50 °C (lit.)
Boiling Point	179-181 °C/10 mmHg (lit.)
Flash Point	175 °C

2. Processing Methods



Cosmetic creams

Add Cetyl Alcohol to the oil phase and heat until fully melted. It acts as an emulsion stabilizer and thickener, contributing to a creamy, smooth texture and improved skin feel.

Key Ingredients	Indicative Dosage (% w/w)
Water (Purified)	66.75%
Glycerin	6.00%
Cetyl Palmitate	10.00%
Paraffinum Liquidum (Mineral Oil)	8.00%
Cetyl Alcohol	3.00%
Stearyl Alcohol	3.00%
Cyclomethicone	3.00%
Sorbitan Stearate	2.00%
Aluminum Starch Octenylsuccinate	1.50%
Phenoxyethanol	0.80%
Methylparaben	0.30%
Carbomer	0.25%
Propylparaben	0.10%
Sodium Hydroxide	0.03%
Urea	6.00%
Glucosyl Glycerides	1.00%

Hair conditioning shampoo

Add Cetyl Alcohol to the oil or surfactant phase and heat until fully melted. It enhances viscosity, provides a creamy texture, and improves the conditioning feel of the shampoo.

Key Ingredients	Indicative Dosage (% w/w)
Steryl dimethyl benzyl ammonium chloride	5.5 %
Ethylene glycol monostearate	2.2%
Cetyl alcohol	2.5%
Water	80-90%
Water, Color, perfume, preservative etc.	



Sunscreen cream

Add Cetyl Alcohol to the oil phase and heat to ensure complete melting. It helps stabilize the emulsion, enhances spreadability, and improves the overall texture and skin feel of the sunscreen cream.

Key Ingredients	Indicative Dosage (% w/w)
Avobenzone	3%
Octocrylene	5%
Isopropyl Myristate	4%
Shea Butter	3%
Cetyl Alcohol	2%
Water	70-80%
Glycerine	4%
Xanthan Gum	0.5%

Makeup foundation lotion

Add Cetyl Alcohol to the oil phase of the foundation cream and heat to ensure proper melting and emulsification. Mix thoroughly to prevent graininess, and combine with the emulsifier for improved texture and stability. Cool the formulation slowly for optimal structure.

Key Ingredients	Indicative Dosage (% w/w)
Stearic acid	2%
Cetyl alcohol	4%
Paraffin liquid	20%
Dimethicone	5%
Polysorbate 80	3.65%
Propylparaben	0.02%
Propylene glycol	5%
Xanthan gum	0.3%
Methylparaben	0.18%
Distilled water	60-70%
Other additives	

3. Dosing by Application



Products	Authorized dosage
Lotions & Creams	1-5%
Shampoos & Conditioners	1-7%
Anhydrous Products (e.g., Body Butters, Balms, Solid Bars)	5-30%

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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