



ELSURFAC - PEG40/HCO™ (PEG-40 Hydrogenated Castor Oil)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Translucent, pale yellow liquid; White to off-white solid flakes; waxy pellets; sometimes available as a paste or semi-solid
Physical Form	Pellets
Molecular Weight (g/mol)	300.477
Density or Specific Gravity	0.983[at 20°C]
Density	0.983[at 20°C]
pH (if aqueous solution)	5.5-7 (3% in water)
Chemical Properties	
Water Solubility	500µg/L at 20°C
Incompatibilities	Generally stable; avoid strong oxidizers
Thermal Properties	
Boiling Point	348°C[at 101 325 Pa]
Thermal stability	Stable under normal conditions

2. Processing Methods



Cosmetic cream

PEG-40 Hydrogenated Castor Oil is typically blended with the oil phase or added during emulsification to ensure a stable, homogenous cream.

Key Ingredients	Indicative Dosage (% w/w)
Water (Aqua)	65.00%
Glycerin	5.00%
Caprylic/Capric Triglyceride	6.00%
Cetearyl Alcohol	3.00%
PEG-40 Hydrogenated Castor Oil	4.00%
Dimethicone	2.00%
Phenoxyethanol	0.80%
Ethylhexylglycerin	0.20%
Fragrance	0.50%
Citric Acid	0.50%
Tocopherol (Vitamin E)	0.50%
Sodium Chloride	0.50%
Disodium EDTA	0.50%
Xanthan Gum	0.50%

Hair shampoo

Add PEG-40 Hydrogenated Castor Oil to the water phase or during the cool-down phase to preserve its solubilizing and emulsifying properties.

Key Ingredients	Indicative Dosage (% w/w)
Primary surfactants	8-12%
Secondary surfactants	2-5%
Butters	20-40%
Hydrogenated Castor Oil (PEG-40)	1-5%
Water	30-50%
Other UV Filters, Antioxidants, Humectants, Fragrance/flavor etc.	



Lip balm

Melt Hydrogenated Castor Oil with other oils and waxes for a smooth blend.

Key Ingredients	Indicative Dosage (% w/w)
Hydrogenated Castor Oil	20%
Beeswax	25%
Shea Butter	30%
Mineral Oil	20%
Tocopherol (Vitamin E)	1%
Flavor / Fragrance, Colorant	

Hair conditioners

When adding Hydrogenated Castor Oil to hair conditioner, melt it gently before incorporation to ensure even distribution.

Key Ingredients	Indicative Dosage (% w/w)
Deionized Water	70-80%
Cetearyl Alcohol	5%
Behentrimonium Chloride	3%
Hydrogenated Castor Oil	3%
Cetyl Alcohol	2%
Glycerin	2%
Dimethicone	1%
Fragrance, Preservatives	

3. Dosing by Application

Products	Authorized dosage %
Creams/Lotions	1-10%
Hair products	1-10%
Body Wash/Soap	1-10%

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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