



ELFAT – EMA™ (Dimer Acid)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Amber to yellow viscous liquid or semi-solid resin
Physical Form	Liquid
Odor	Mild fatty
Molecular Weight (g/mol)	564.9
Density or Specific Gravity	0.950 g/cm3
Chemical Properties	
Incompatibilities	Strong oxidizing agents.
Thermal Properties	
Melting Point	-18°C (pour point)
Boiling Point	> 260° C
Flash Point	> 257 °C
Solvent	
Water	<0.01% (insoluble)
Ethanol, other alcohols	Miscible
Ether, acetone, chloroform	Miscible
Benzene, aromatic hydrocarbons	Miscible

2. Processing Methods



Cosmetic cream

Add 0.5-3% Dimer Acid to impart long-lasting emolliency, improve skin conditioning, and enhance barrier function by forming a breathable film on the skin. Dimer Acid is oil-soluble and should be added during the oil phase heating to ensure full integration and prevent separation in the emulsion.

Key Ingredients	Indicative Dosage (% w/w)
Glycerin	5.0%
Sodium Chloride	0.5%
Deionized Water (Aqua)	~80.5%
Disteardimonium Hectorite	1.7%
Polyoxyethylene/Methylpolysiloxane Copolymer	0.5%
Decamethyl-tetrasiloxane	10.0%
Squalane	2.0%
Cetyl Ethylhexanoate	2.0%
Petrolatum	0.5%
Bis(behenyl/isostearyl/phytosteryl) Dimer Dilinoleate	2.5%



Cosmetic makeup foundation

Add 0.5-10% Dimer Acid to improve spreadability, provide long-wear properties, and form a soft, flexible film that helps anchor pigments and enhance coverage. Being oil-soluble, Dimer Acid should be blended into the oil phase and heated to ensure full dissolution and uniformity in the emulsion.

Key Ingredients	Indicative Dosage (% w/w)
Water	60.0 %
Isododecane (light oil base)	10.0 %
Dimethicone	5.0 %
Cetyl PEG/PPG-10/1 Dimethicone	3.0 %
Titanium Dioxide	7.0 %
Iron Oxides	5.0 %
Mica / Synthetic Fluorphlogopite	3.0 %
Dimer Dilinoleyl Bis(behenyl/isostearyl/phytosteryl) (dimer acid ester)	10.0 %
Caprylic/Capric Triglyceride (emollient)	3.0 %
Glycerin	2.0 %
Phenoxyethanol & Ethylhexylglycerin (preservatives)	1.0 %
Xanthan Gum	0.2 %
Disodium EDTA	0.1 %
Fragrance	0.7 %



Hair conditioner

Add 0.5-2% Dimer Acid to create a lightweight, flexible film on the hair shaft that improves smoothness, softness, and manageability without weighing the hair down. Dimer Acid is oil-soluble and should be added to the heated oil phase to ensure proper melting and dispersion throughout the emulsion.

Key Ingredients	Indicative Dosage (% w/w)
Cetrimonium Chloride	1.20% (as received)
Steartrimonium Chloride	1.80% (as received)
Glyceryl Stearate	~1.20%
Cetyl Alcohol	~4.80%
Olive Oil	~1.80%
Lauryldimethylamine Dimer Dilinoleate (dimer acid salt)	~1.00%
Cetyl Ethylhexanoate	~1.20%
Dimethicone	~3.00%
Dimethicone	~1.00%
Preservatives (e.g., methylparaben, propylparaben)	~0.10-0.20%
Water (Aqua)	Balance (~84-90%)

3. Dosing by Application

Products	Authorized dosage
Moisturizing creams/lotions	2-10%
Concealer/makeup foundations	2-10%

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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