



ELFAT - OLA75™ (Oleic Acid)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Pale yellow to brownish oily liquid
Physical Form	Liquid
Odor	Peculiar lard-like odor
Molecular Weight (g/mol)	282.5
Density or Specific Gravity	0.89 at 77 °F
Viscosity	25.6 cP at 30 °C
Refractive Index	1.463 at 18 °C/D; 1.4585 at 26 °C/D
Density	0.89 at 77 °F
Chemical Properties	
pKa	5.02 in aqueous solution at 25 °C
Hazardous Reactions	When heated to decomposition it emits acrid smoke and irritating fumes.
Thermal Properties	
Melting Point	61.3 °F
Boiling Point	547 °F at 100 mmHg
Flash Point	372 °F
Autoignition Temperature	685 °F

2. Processing Methods



Cosmetic cream

Incorporate Oleic Acid during the oil phase preparation to ensure proper solubilization with other lipids or oils. Oleic Acid can affect emulsion stability and pH. Use a compatible non-ionic or anionic emulsifier and maintain pH above 5 to avoid irritation.

Key Ingredients	Indicative Dosage (% w/w)
Water	65%
Glycerin	5%
Oleic Acid	3%
Stearic Acid	5%
Cetyl Alcohol	4%
Mineral Oil	6%
Triethanolamine	1%
Dimethicone	2%
Phenoxyethanol	1%
Carbomer	1%
Tocopheryl Acetate	1%
Fragrance	0.5%
Disodium EDTA	0.5%



Shampoo

Oleic Acid can be added to the oil phase or at cool-down stage if the formulation is surfactant-based, ensuring proper dispersion and minimizing oxidation. Use with non-ionic or mild anionic emulsifiers to help solubilize Oleic Acid and maintain emulsion stability in the aqueous system.

Key Ingredients	Indicative Dosage (% w/w)
Water	60%
Sodium Laureth Sulfate	12%
Cocamidopropyl Betaine	8%
Oleic Acid	5%
Glycerin	3%
Glycol Distearate	2%
Polyquaternium-10	0.5%
Citric Acid	0.2%
Fragrance	0.3%
Preservative (e.g., DMDM Hydantoin)	0.5%
Sodium Chloride	2%
Panthenol	1%
Guar Hydroxypropyltrimonium Chloride	0.5%
Disodium EDTA	0.2%

Soap

Include Oleic Acid in the oil blend before saponification. It reacts with alkali (NaOH or KOH) to form sodium or potassium oleate. Since Oleic Acid produces a softer soap, balance it with harder fats/oils like coconut oil, palm oil, or stearic acid to improve bar firmness and longevity.

Key Ingredients	Indicative Dosage (% w/w)
Oleic Acid	20%
Stearic Acid	11%
Potassium Hydroxide	11%
Olive Oil	4%
Coconut Oil	14%
Water (balance)	~40%
Sodium Chloride	<4%
Citric Acid (pH adjust)	



Detergent

Combine with surfactants like SLS, LABSA, or soap noodles to improve emulsifying capacity and tailor the detergent's fatty acid profile. Ensure neutralization is done between pH 8-10 to form stable soap without over-alkalizing the formula.

Key Ingredients	Indicative Dosage (% w/w)
Water	62%
Citric Acid Monohydrate	10%
Sodium Lauryl Sulfate	8%
Linear Alkylbenzene Sulfonate (LABS)	8%
Ethanol	4%
Propanediol	2%
Oleic Acid	2%
Alkylbenzene Sulfonate	3%
Polyvinylpyrrolidone (PVP)	1%
Diethylene Triamine Penta(Methylene Phosphonic Acid)	0.2%
Enzymes (e.g., Lipase, Protease)	0.8%

3. Dosing by Application

Products	Authorized dosage
Face, Body, Hand Skin Care	1-10%
Shampoos	5-15%

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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