



ELHUME - GLO G3™ (Glycerine)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Clear, colorless, viscous liquid
Physical Form	Liquid
Odor	Mild Odor
Molecular Weight (g/mol)	92.09
Density or Specific Gravity	1.261 g/cm ³ at 68 °F
Viscosity	954 cP at 25°C
Refractive Index	[n] _D /20 between 1.471 and 1.474
pH (if aqueous solution)	Neutral to litmus
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Chemical Properties	
pKa	14.4
Water Solubility	>500 g/L (20 °C)
Incompatibilities	Strong oxidizers
Hazardous Reactions	Glycerin may explode if mixed with strong oxidizing agents such as chromium trioxide, potassium chlorate, or potassium permanganate
Thermal Properties	
Melting Point	64 °F
Boiling Point	554 °F at 760 mmHg (decomposes)
Flash Point	320 °F
Autoignition Temperature	698 °F

2. Processing Methods



Cosmetic creams

Add glycerin to the water phase of the cream formulation before emulsification. Ensure thorough mixing to enhance hydration and prevent tackiness, balancing with humectants or emollients for optimal skin feel.

Key Ingredients	Indicative Dosage (% w/w)
Water (Purified)	66.75%
Glycerin	6%
Cetyl Palmitate	10%
Paraffinum Liquidum (Mineral Oil)	8%
Cetyl Alcohol	3%
Stearyl Alcohol	3%
Cyclomethicone	3%
Sorbitan Stearate	2%
Aluminum Starch Octenylsuccinate	1.5%
Phenoxyethanol	0.8%
Methylparaben	0.3%
Carbomer	0.25%
Propylparaben	0.1%
Sodium Hydroxide	0.03%
Urea	6%
Glucosyl Glycerides	1%

Moisturizing Facial Cleanser

Add glycerin to the water phase of the moisturizing facial cleanser, usually at 3-5%, to boost hydration and skin softness. Mix thoroughly before surfactants are added to ensure even distribution and reduce potential irritation.

Key Ingredients	Indicative Dosage (% w/w)
50-70%	
Surfactants (cleansing agents)	2-10%
Glycerin	3-5%
Emollients, humectants (other than glycerin)	1-5%
Actives, Preservatives, Thickeners, pH adjusters, Fragrance etc.	



Hair Conditioners

Add glycerin to the aqueous phase of hair conditioner formulations depending on desired humectancy. Blend it in before emulsification to ensure uniform distribution and enhance moisture retention without causing stickiness or heaviness.

Key Ingredients	Indicative Dosage (% w/w)
Water (Aqua)	70%
Cetearyl Alcohol	6%
Behentrimonium Chloride	4%
Glycerin	5%
Cyclopentasiloxane	5%
Dimethicone	3%
Panthenol (Pro-Vitamin B5)	1%
Hydrolyzed Keratin	1%
Preservative (e.g. Phenoxyethanol, Ethylhexylglycerin)	1%
Fragrance	0.5%
Citric Acid (10% solution)	0.5%

Sunscreen cream

When adding glycerin to sunscreen cream, incorporate it into the water phase before emulsification for even distribution. Avoid excessive use to prevent tackiness. Ensure proper emulsification and cool-down mixing for a smooth, stable texture.

Key Ingredients	Indicative Dosage (% w/w)
Avobenzone	3%
Octocrylene	5%
Isopropyl Myristate	4%
Shea Butter	3%
Cetyl Alcohol	2%
Water	61-75%
Glycerine	4%
Xanthan Gum	0.5%

3. Dosing by Application

Products	Authorized dosage %
Cosmetic creams/ Lotions	2-10%



Products	Authorized dosage %
Moisturizing Facial Cleanser	3-50%
Hair Conditioners	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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