



ELFAT - CAS IND™ (Castor Oil)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Transparent colorless oily liquid; may appear cloudy when cold
Physical Form	Liquid
Molecular Weight (g/mol)	933.4
Density or Specific Gravity	0.955 g/mL at 25 °C
Refractive Index	n ₂₀ /D 1.478(lit.)
Chemical Properties	
Incompatibilities	Strong oxidizing agents.
Hazardous Reactions	Castor oil can develop heat spontaneously in the air
Thermal Properties	
Melting Point	-10°C
Boiling Point	313 °C(lit.)
Autoignition Temperature	449°C _A

2. Processing Methods



Cosmetic creams

When adding Ricinus Communis (Castor) Seed Oil in cream formulations, include it in the oil phase and heat gently (around 70°C) for proper emulsification. Its high viscosity enhances richness but may affect spreadability, balance with lighter oils if needed. Mix thoroughly to ensure a smooth, stable cream texture.

Key Ingredients	Indicative Dosage (% w/w)
Carnauba Wax	4.5%
Tridecyl Trimellitate	11.5%
Castor Oil	6%
Butylparaben	0.06%
Magnesium Stearate	3%
Polymethyl Methacrylate	10%
Corn Starch	5%
Mica	21%
Talc	20%
Silica	2%
Cetearyl Octanoate	8%



Cosmetic lipstick

When adding Ricinus Communis (Castor) Seed Oil in lipstick, include it in the oil phase and heat with waxes to ensure proper fusion. Its high viscosity helps bind ingredients and enhances payoff. Stir thoroughly during cooling to prevent graininess and ensure a uniform texture.

Key Ingredients	Indicative Dosage (% w/w)
Candelilla Wax	4%
Carnauba Wax	6%
Isoeicosane	6%
Polyisobutene	3.5%
Isopropyl Palmitate	11%
Tridecyl Trimellitate	10%
PEG-4 Diheptanoate	4%
Octyl Palmitate	8.35%
Castor Oil	23%
Propylparaben	0.1%
BHT	0.05%
Sericite PHN	1%
Silica	1.5%
Titanium Dioxide	2%
Colorant	6.5%

Makeup foundation lotion

In foundation formulation, add Ricinus Communis (Castor) Seed Oil to the oil phase for its pigment-dispersing and emollient properties. Heat gently and mix thoroughly to ensure even distribution and a smooth, long-wearing texture.

Key Ingredients	Indicative Dosage (% w/w)
60-80%	60-80%
Emulsifiers (e.g., Stearic Acid, Sorbitan Stearate)	1-6%
Emollients (e.g., Castor Seed Oil)	8-20%
Pigments (e.g. titanium dioxide)	5-15%
Thickeners (e.g., xanthan gum)	0.1-1%
Preservatives, fragrance, additives	



Lip balm

In lip balm formulation, add Ricinus Communis (Castor) Seed Oil to the oil phase for its thick, glossy texture and excellent pigment dispersion. Heat gently with other oils and waxes to ensure uniform blending and a smooth, moisturizing finish.

Key Ingredients	Indicative Dosage (% w/w)
Nicotinamide	0.05%
Avobenzone	0.22%
Zinc oxide	0.13%
Titanium dioxide	0.10%
Polyglyceryl-2 triisostearate	30%
Beeswax	5.5%
Olive wax	3%
Alkene wax	4%
Castor oil	18%
Liquid paraffin	24%
Peppermint essential oil	5%
Ethylparaben	4%
Chrysanthemum extract	6%

3. Dosing by Application

Products	Authorized dosage %
Cosmetic creams/ Lotions	Upto 12.5%
Lip balm/ Lipstick	Upto 30%

4. Grade Comparison Summary

Parameter	Industrial Grade
Purity (%)	~95-98
Appearance	Yellow to brownish liquid
Odor	Slight to strong odor possible
Regulatory Compliance	TSCA (not for pharma/food use)
Typical Applications	Lubricants, greases, paints, biodiesel



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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