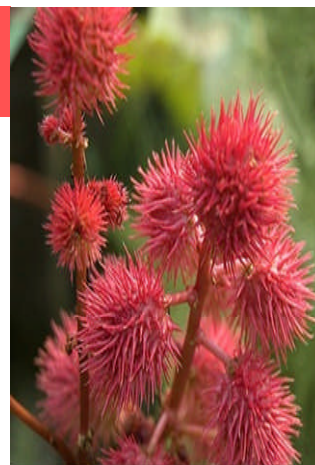


Natunola® Castor 1023



Castor oil, derived from the bean of the Castor plant *Ricinus communis*, is the primary component within **Natunola® Castor 1023**. Therapeutic use of Castor oil and seed has long been documented in ancient civilizations such as Egypt, China and India. This naturally occurring oil typically consists of 87% ricinoleic acid, 7% oleic acid, 3% linoleic acid, Palmitic acid and 1% stearic acid. Most chemical and physical properties of Castor oil are based on the molecular structure of ricinoleic acid. The unique molecular structure of ricinoleic acid allows for castor oil based ingredients to be used as a starting material within the Cosmetic industry.

Natunola® Castor 1023 is attributed with a high degree of stability and increased shelf-life as it resists oxidation. The product acts as an effective emollient that easily penetrates the skin to leave it soft and supple. In addition, the remarkable film forming, pigment wetting and pigment adhesion properties makes **Natunola® Castor 1023** ideal for Cosmetic formulations.

Description:

Natunola® Castor 1023, developed from Castor oil is an effective binding agent in cosmetic preparations. The viscosity of **Natunola® Castor 1023** gives rise to a high impact emollient with increased dispersion, lustre and smoother application. Such characteristics results in superior pigment wetting and pigment adhesion properties that make **Natunola® Castor 1023** an exceptional ingredient in lip care and colour based cosmetic formulation.

Functionality:

Natunola® Castor 1023 is an ideal ingredient in cosmetic formulations that can be used as a skin conditioner, emollient, film former, viscosity controlling agent and a viscosity building agent for anhydrous systems.

Applications:

Natunola® Castor 1023 can be used in a wide array of applications such as lip balm, lipstick, lip gloss, pomades, bath gel, anhydrous liquid sunscreen gel, body and hand creams/lotions, moisturizing creams, shampoos and suntan products.

INCI Name: Ricinus Communis (Castor) Seed Oil (and) Glycine Soja (Soybean) Germ Extract (and) Zea Mays (Corn) Starch (and) Silica

Specifications:

Appearance:	Clear, transparent gel
Odour:	Light, characteristic
Bacteriological Data:	Total bacteria count (aerobic): <100 cfu/g (At the time of packaging)
Solubility:	Soluble in all vegetable oils, glycerol tri-isoearate, isosterarly isosterate, oleic acid, isosteraic acid, coco-caprylate/caprata and mixed glycerides. Insoluble in water silicone oil; partially soluble in ethanol and 1,2 propanadiol
pH (1:20 water emulsion)	4.6 - 6.6
Gardner Colour (1:10 in mixed glycerides):	Maximum 3
Stability:	Stable at room temperature. Store in original container under 20°C
Recommended Usage Level:	Skin care creams and lotions: 1% to 75%(wt/wt)
Formulating pH:	Medical care: 1% to10%(wt/wt)
Formulating Temperature:	The recommended pH range is 3 to 8. The recommended working temperature range is 45°C to 95°C. The best working temperature is 90°C.

Specifications are based on information available at the time of printing. This information is provided in good faith and is subject to the following conditions: 1. Natunola makes no warranty of any kind concerning any product, formulation or procedure or other matter contained in the information including, without limitation, any warranty that the sale or use of any product, formulation or procedure will not infringe any patent or other third party right; 2. The user of the information will not provide it to third parties and will indemnify and hold Natunola harmless from any liability arising out of the recipient's use of the information. (March, 2010)



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