



## Campbell & Co.

Supplier of castor oil & derivatives and raw materials for UV curing

# Campbell and Co. #1 and Pale Pressed Castor Oil Products



Castor oil is natural oil obtained from the seed of the castor plant, produced primarily in India, China and Brazil. Scientific and historical records reveal that regardless of the oil's origin, its chemical nature and composition are remarkably uniform. Castor oil is a triglyceride (ester) of fatty acids.

- Approximately 90% of the fatty acid content is ricinoleic acid, an 18-carbon acid with a double bond in the 9-10 position and a hydroxyl group on the 12<sup>th</sup> carbon.
- This combination of hydroxyl group and unsaturation occurs only in castor oil.
- Because of its highly polar hydroxyl groups, castor oil is compatible with, and can be utilized to plasticize a wide variety of natural and synthetic resins, waxes, polymers and elastomers.
- It has excellent emollient and lubricating properties as well as a marked ability to wet and disperse dyes, pigments and fillers.

### Grades of Castor Oil

#### #1 Imported (Industrial) Grade

Obtained from a mixture of the first pressing and the second phase of production, solvent extraction.

#### Pale Pressed (AA Standard) Grade

Obtained from the first pressing of the castor bean. It is lighter in color and lower in acidity than other grades.

The chart at right describes the various characteristics and applications for #1 and Pale Pressed grades of castor oil.

### Characteristics and Applications

Characteristic	Application
Clear, viscous, light color	Urethanes, lacquers, rubber
Non-drying and stable	Adhesives, sealants, caulks
Broad compatibility	Pigments, dyes, coatings
Emolliency	Hydraulic and brake fluid
Lubricity and plasticizing	Lubricants
Penetration and surface wetting	Liquid dielectrics
Pigment/dye dispersion	Inks, waxes, polishes
Base compound for reactions	Soaps, textiles

### Technical Specifications

Specification	#1 Castor Oil	Pale Pressed Castor Oil
Color Gardner	3 max.	2 max.
Acid Value	2 max.	1.5 max.
Moisture %	0.25 max.	0.25 max.
Insoluble impurities	Trace	Trace
Hydroxyl value	160-168	160-168
Iodine value	83-88	83-88
Sapon value	175-185	175-185
Viscosity at 25° C	6.3-8.9	6.3-8.9