



Technical Sheet Data

Castor Oil

Product Overview:

Castor Oil is obtained from the seed of *Ricinus communis* and has been fully refined and purified. This product meets all requirements set forth by the United States Pharmacopoeia (USP).

Product Specifications: (using AOCS Test Method #)

*tests are conducted at CFC and are on Certificate of Analysis (COA)

Flavor / Odor (sensory)	Bland
Color, Lovibond (Cc13b-45)	3.0R (max)
Free Fatty Acid, % as Oleic (Ca 5a-40)	1.0 (max)
Iodine Value, WIJS (Cd 1-25)	83 – 88
SAP Value mg KOH/g (mg NaOH/g)	179 (127)
Specific Gravity @ 25°C	0.957 – 0.961
Heavy Metals, %	0.01 (max)
Hydroxyl Value	160 – 168

Typical Properties: (not reported on COAs)

*Universal test results

Flash Point (Closed Cup)	450°F (min)
Viscosity @ 40°C	39.0 cSt
Moisture	<500ppm

Ingredient Breakdown:

USP Castor Oil	100%
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Label Ingredients Statement:

Castor Oil

Applications:

Used in the Cosmetic and Pharmaceutical industry such as lubricants, carriers and soaps.

Claims:

Halal Compliant (not certified)

USP Certified

SQF Food Safety and Food Quality (as applicable; symbol may be present on label)

Country of Origin:

This product is imported from India.

Process Flow:

Derived from the plant *Ricinus communis*. Refined, Bleached and Deodorized

Status of Ingredient Statement:

Castor Oil is considered Vegan, Lactose Free, Gluten Free, Glutamate Free, BSE & TSE Free, No Hydrogenated or Partially Hydrogenated Oils, No Preservatives, No Nanotechnology

Packaging & Availability:

Contact sales about packaging options and product availability

Storage & Shelf Life:

Store at 65 - 75°F in a dry and odor-free environment.

Best if used within 12 months from the date of manufacture in unopened containers.

Sewer Sludge and Irradiation:

TKB TRADING LLC products are not exposed to, nor cultivated in, sewage sludge during production and subsequent processing. The oil is not exposed to any irradiation.

Castor Oil

Food Grade Statement:

Castor Oil is approved for numerous uses in food referencing the following 21CFR172.876, 21CFR172.510, 21CFR73.1, 21CFR176.210, 21CFR177.2600, 21CFR177.2800, 21CFR178.3570, & 21CFR524.2620.

Regulatory Information:

Castor Oil is Proposition 65 compliant, exempt from REACH (EC 1907/2006) as per Annex V, understood to be in Compliance with EC 1881/2006, All additives (except TBHQ) comply to EC 96/77/EC, meets CONEG requirements, and is registered and compliant with Public Health & Security.

CAS# 8001-79-4 EC# 232-293-8

INCI Name – Ricinus Communis (Castor) Seed Oil

FDA Bioterrorism Preparedness and Response Act of 2002 Registration #: -----5788, Registration is Current

Foreign Material Contamination:

Pesticide Residues - Vegetable Oils may be routinely monitored for both Organo Phosphate and Chlorinated pesticide residuals by our suppliers. Detections limits for testing are in the 0.01ppm range. Due to the extensive processing involved, these materials are not expected to remain even if present in the original oilseed. To date, no detectable levels are known to be present in the product.

Heavy Metals - When previously tested, no reportable levels of heavy metals have been found. These include but are not limited to Lead (<0.1 ppm), Cadmium (<0.05ppm), Chromium (<0.05ppm), Mercury (<0.05ppm), and Arsenic (<0.1ppm).

Other contaminants – There is no known content or contamination of potentially hazardous components in this vegetable oils and as such there is no risk of contamination. These components include but are not limited to mycotoxins, phthalates, PAH, BPa, Dioxin, melamine, ethylene oxide, zearalenone, and organic solvents.

GMO Statement:

Non GMO

This term shall be used to describe products that contain NO ingredients, additives or processing aides derived from commodities that have commercially grown GMO varieties in the supply chain (i.e. contains no soybean, corn, cotton, canola, squash, papaya, potato or tomato).

Castor Oil is packed using clean lines and is free from all extraneous material that might harbor genetically modified organisms (GMOs) or substances derived thereof.

Nutritional Statement:

Castor Oil is not digested in the body

Microbiological Statement:

Our products have low moisture content (less than 0.05% typical), have been processed at elevated temperatures, and lack nutrients essential to support growth of most microorganisms. Organisms considered food-borne pathogens or of concern from a quality standpoint are not able to proliferate in oil; processes and packs oil and shortening in a closed and sealed system offering little opportunity for contamination from extraneous materials that might harbor pathogens, viral particles etc.

The limits for each microorganism tested are outlined below.

Organism	Limits
Total Plate Count	Less than 100 per gram
Coliforms	Less than 10 per gram
E. coli	Less than 10 per gram
Staph. aureus	Negative
Salmonella	Negative
Yeast & Molds	Less than 10 per gram

Castor Oil

Allergens:

Castor Oil does not contain any of the eight major allergens, which are soy, eggs, peanut, milk, wheat, tree nuts, fish, and crustacean fish. CVO also considers sesame protein an allergen because it has caused allergic reactions to some individuals and thus is a concern to many food processors.

Refined, bleached, and deodorized (RBD) oils do not contain any proteinaceous material. The high temperature and filtration used in the RBD process effectively removes any proteins, potentially allergenic material from the oil. Furthermore, refined oils do not require allergen labeling under the Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA).

RBD oils derived from an allergen source include: Allergen Labeling required for Europe (Directive 2000/13/EC and Directive 2007/68/EC). Please reference your country of destination legislation for any additional allergen labeling.

Allergen	In the Product	On the same line	In the Facility
Soy Lecithin - Soy	no	no	yes
Toasted Sesame Oil - Sesame	no	no	yes
Golden/Roasted Peanut Oil - Peanuts	no	no	yes
Sensitizing Agents (NOT KNOWN ALLERGENS)			
Artificial Flavors – Butter & Vanilla	no	no	yes
Artificial Preservatives – TBHQ, BHA, BHT	no	no	yes
Alcohol – Vanilla Flavoring	no	no	yes

Stored Products:

Allergens listed below are not found in the oil production facility, and those marked with * may be stored and labeled in the warehouse in finished form. All products come from approved suppliers. Each product is evaluated on the potential cross contamination with other products and allergens in the approved supplier's facility. If there is any risk to that product, then it is stated at the top of this section as "may contain" or "contains". Otherwise if it is not, those Allergens or Sensitizing Agents listed below DO NOT pose any threat to any of CVO's finished products.

***Milk and derivatives, *eggs and derivatives, *fish**, shellfish (including crustaceans, mollusks and their derivatives), ***tree nuts and derivatives, *wheat and derivatives**, rice and derivatives, corn and derivatives, gluten sources (other than Wheat: such as oat and its by products, barley, rye, malt, buckwheat, spelt and kamut), yeast and derivatives, Lupin and derivatives, artificial colors, MSG, benzoates, hydrolyzed vegetable proteins, sulfites, artificial sweeteners, ***animal derivatives**, sodium, ***mustard, *celery seeds, *seeds**, aspartame, saccharin, ***cocoa and derivatives**, cinnamon, lactose, casein, rBST bovine growth hormone, and caffeine.

Allergen Cross-Contamination Prevention:

Potential allergenic materials are produced using designated storage and processing, the risk of contamination is extremely low. When flush oils are used these are isolated and used only in products that may contain the same allergens. All containers and storage tanks are labeled accordingly if they may contain allergens. TKB also has a dressing plant in the same building but in a separate, closed area. The allergens handled there are wheat, soy, milk, eggs, fish and celery. There are procedures in place to minimize any cross contamination and risk.