



CERTIFICATE OF ANALYSIS

CASTOR OIL - USP

ITEM: S1120

LOT: COUSP/09/23

Date of Production: September, 2023

Expiration Date: September, 2026

Parameter	Unit	Min	Max	Result
Acid Value	mgKOH/g		2	1.59
UV Absorption @ 270nm	Abs	0.7	1.5	0.886
Water determination	%		0.3	0.27
Saponification Value	mgKOH/g			178.96
Hydroxyl Value	mgKOH/g	160	168	165.05
Peroxide Value	meq/kg		10	0
Unsaponifiable Matter	%		0.8	0.38
Distinction			Partly soluble in solvent hexane. Yields a clear liquid with an equal volume of alcohol.	Conforms
Fatty Acid Profile (Area)				
C:16:0 Palmitic Acid	%		2.0	1.181
C:18:0 Stearic Acid	%		2.5	1.013
C:18:1 Oleic Acid	%	2.5	6.0	2.972
C:18:2 Linoleic Acid	%	2.5	7.0	5.162
C:18:3 Linolenic Acid	%		1.0	0.475
C:20:1 Eicosenic Acid	%		1.0	0.290
Ricinoleic Acid		85.0	92.0	89.317
cis-11-Octadecenoic or other unidentified fatty acid	%		1.0	0.908
Triglyceride Composition				
RRR	%	90.0		91.17
RRL	%	2.0	4.0	3.83
RRO	%	2.5	5.0	4.37
RRS	%	0.2	0.8	0.63

Shelf life is expected to be three years from the date of production if the product is stored in the unopened original container between 15°C - 30°C, protected from light. Because this material is sensitive to oxidation, it is saturated with nitrogen and sealed with nitrogen atmosphere for protection. If containers are opened for sampling, be sure to refill atmosphere with nitrogen. Containers that have been opened should be tested at least yearly to ensure quality. Although GreenIVe believes the above information to be accurate based on the information available to GreenIVe, it is the responsibility of the customer and user of the material to perform its own investigation and due diligence prior to use to verify that the product purchased from GreenIVe meets their quality requirements and is appropriate for the use to which the product is to be put. The information provided above shall be considered effective only for the lot with which the information is being provided. Use and purchase of this material is subject to GreenIVe standard terms and conditions, which supersede any conflicting terms contained on Buyer's purchase order or any document or instrument supplied by Buyer.