



Certificate of Analysis

Product GLYCERIN USP 99.7%
Lot # J34525D10196
Shelf Life 5 years

Properties	Specifications	Results
Appearance @ 25 Degrees C	Clear Viscous Liquid	Pass
Identification tests A, B & C	To Meet Requirements	Pass
Assay, %	99.0 - 101.0	99.9
Chlorides, ppm	10.0 Maximum	0.0
Sulfates, ppm	20.0 Maximum	2.0
Heavy Metals, ppm	5.0 Maximum	<5.0
Residue on Ignition, %	0.01 Maximum	<0.01
Individual Organic Impurities, %	0.1 Maximum	<0.1
Total Organic Impurities, %	1.0 Maximum	<1.0
Fatty Acids & Esters (as ml of 0.5N NaOH)	1.0 Maximum	0.1
Chlorinated Compounds	20.0 ppm Maximum	<20.0
Color (APHA)	10.0 Maximum	2.0
Specific Gravity @ 25 Degrees C	1.2490 Maximum	1.2616
Water, %	5.0 Maximum	0.1

This Certificate of Analysis was created by the manufacturer/distiller of the product. This information is believed to be up-to-date and correct; however, it is provided without any warranty. The customer is responsible for examining the product upon arrival and determining the safe use of the product in order to be in compliance with all applicable laws and regulations. The product must be stored in a cool, dry place away from direct light and heat, tightly sealed and away from children, the mentally infirm and pets. Essential oils shipped in amber plastic pharmaceutical grade bottles must be transferred to amber glass upon arrival, those shipped in aluminum bottles may be stored in such bottles for a minimum of 6 months, tightly sealed. All responsibility (including damage or injury) for the use of this and any other product purchased from Camden-Grey Essential Oils, Inc. rests with the purchaser/user. Camden-Grey's liability is limited to the paid value of this product.

Certificate of Analysis

Product	GLYCERIN USP 99.7%
Lot #	200652
Shelf Life	2 years

Properties	Specifications	Results
Characters/Appearance	Clear colorless Liquid	Pass
Assay %	99.5 min	99.8
Fatty Acids & Esters (ml 0.5M NaOH/50g)	1.0 max	0.2
Colour (APHA)	10 max	2.5
Chlorides (ppm Cl)	10 max	<10
Sulphate (ppm)	20 max	<20
Water %	0.5 max	0.08
Residue on ignition %	0.01 max	<0.01
Identification A (Infra red Adsorption)	Pass	Pass
Diethylene Glycol (wt%)	0.1 Max	<0.1
Ethylene Glycol (wt%)	0.1 max	<0.1
Identification C (Choromatography)	Pass	Pass
Individual impurities (wt%)	0.1 max	<0.1
Total impurities (wt%)	1.0 max	<1.0
Chlorinated compounds (ppm Cl)	30 max	<30
Heavy Metal (ppm Pb)	5 max	<5.0
Specific Gravity at 25/25 °C	1.2612 min	1.2618
Refractive Index at 20 °C	1.470 – 1.475	1.4738
Odour	Typical Odour	Pass

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Certificate of Analysis

Product	GLYCERIN USP 99.7%
Lot #	288F140619
Shelf Life	2 years

Properties	Specifications	Results
Appearance	Clear	Clear
Glycerol Content % wt	99.7 Min	99.9
Color (APHA)	10 Max	2
Specific Gravity 25°C	1.2610 Min	1.2616
Water Content % wt	0.3 Max	0.058
Chloride ppm	10 Max	< 10
Sulfate ppm	20 Max	< 20
Heavy Metals (as Pb) ppm	5 Max	< 5
Fatty Acid & Esters mL 0.5N NaOH	1.0 Max	0.2
Diethylene Glycol % wt	0.1 Max	< 0.1
Ethylene Glycol % wt	0.1 Max	< 0.1
Identification A	Pass	Pass
Identification C	Pass	Pass
Residue on ignition % wt	0.01 Max	< 0.01
Limit of chlorinated compound ppm of Cl	30 Max	< 30
Individual impurities % wt	0.1 Max	< 0.1
Total impurities % wt	1.0 Max	< 1.0
Organic volatile impurity	Pass	Pass
Readily carburizable substances	Pass	Pass
Arsenic ppm	1.5 Max	Not Detected
Lead ppm	1 Max	Not Detected
Refractive index at 20 °C	1.470 Max	1.4742
Acidity or alkalinity mL 0.1N NaOH	0.2 Max	< 0.2
Ammonium	Pass	Pass
Calcium	Pass	Pass
Reducing substances	Pass	Pass
Aldehyde ppm	10 Max	< 5
Ester mL 0.1N HCl	Not less than 8.0	> 8
Halogenated compound ppm	35 Max	< 35
Sugar	Pass	Pass
Butanethiols % wt	0.2 Max	< 0.2

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