

Delivery Address
Brenntag Great Lakes
4801 S Austin Avenue
Chicago Il. 60638

Certificate of Analysis

Loading date
10/08/2014

Ordernumber Oleon

Your reference / Date

Product Information
Description GLYCERINE 4833 99.7%
Glycerin Kosher 99.7% Ph.Eur./USP (E422)

Shelf life:
Shelf life bulk material = 1 year

Quantity 21.020 TO
Batch Sample 1/1174303/00

Results of analysis	Unit	Results	Min.	Max.	Method
Refractive Index at 20°C		1.474	1.473	1.474	APAG-GL-006
Glycerol Content	%(m/m)	99.82	99.70		APAG-GL-009
Colour APHA		2.5		10.0	ISO 2211
Acidity (ISO)	meq/100g	0.02		0.08	ISO 1815
Acidity (EP) / ml 0,1 M NaOH		0.05		0.20	Ph.Eur.
Alkalinity / ml 0,1 M HCl	ml	0.00		0.00	Ph.Eur.
Acidity or Alkalinity (EP)		Conform	-	-	Ph.Eur.
Colour		Conform	-	-	Oleon GLY07
Water	%(m/m)	0.15		0.30	ISO 760
Specific gravity at 25°C (USP)	g/ml	1.2613	1.2490		US Ph.
Assay (USP)	%(m/m)	99.8	99.0	101.0	US Ph.
Assay (EP)	%(m/m)	99.8	98.0	101.0	Ph.Eur.
Identification A (Refractive Index)		Conform	-	-	Ph.Eur.
Identification B (infrared) ^a		Conform	-	-	Ph.Eur.
Identification C (Nitric acid test) ^a		Conform	-	-	Ph.Eur.
Identification D (Acrolein test) ^a		Conform	-	-	Ph.Eur.
Appearance of solution (EP)		Conform	-	-	Ph.Eur.
Aldehydes (EP) ^a	ppm(m)	< 10		10	Ph.Eur.
Esters (EP) / 0,1 M HCl	ml	> 8,0	8,0		Ph.Eur.
Imp. A and related substances (EP) ^a		Conform	-	-	Ph.Eur.
-Impurity A (DEG)	%	< 0,1		0,1	Ph.Eur.
-any other impurity eluting before glyc	%	< 0,1		0,1	Ph.Eur.
-total impurities eluting after glyc	%	< 0,5		0,5	Ph.Eur.
Halogenated compounds (EP) ^a	ppm(m)	< 30		30	Ph.Eur.
Sugars (EP) ^a		Conform	-	-	Ph.Eur.
Chlorides (EP)	ppm	< 10		10	Ph.Eur.

^a : Weekly measured value / ^b : Quarterly measured value
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IMPORTANT: All information provided is believed to be accurate and complete. The data provided is representative of the product quality on the date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale.