

Certificate of Analysis

Date of issue: 2018_02
Replace version: 2018_01

This product has been produced by:

*Reg(EG) no. 183/2005
Approval of feed business
establishment
α NL 212931*

Sample: Einecs: Taken from: Batch dated: Batch number: Remarks:	Pharma glycerine, min. 99.5% 200-289-5 07F18A 08-05-2019 201919307F18A	vegetable (OU)-Kosher CAS: 56-81-5	Non-GMO 56-81-5
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Analysis	Unit	min	max	Result	Method of analysis
Appearance			Colourless	Colourless	European Pharmacopoeia
Appearance of solution			Clear	pass	European Pharmacopoeia
Smell			Absent	absent	European Pharmacopoeia
Esters	ml 0.1 m HCl-solution	8,0		9,19	European Pharmacopoeia
Color (APHA)	Hazen		10	5	ISO 6271
Water	% (m/m)		0,5	0,041	European Pharmacopoeia
Refractive index @ 20°C		1,471	1,474	1,472	European Pharmacopoeia
Density @ 20°C	g/cm ³	1,260		1,260	European Pharmacopoeia
Acidity	ml 0.1 m NaOH-solution		0,2	0,02	European Pharmacopoeia
Aldehydes	mg/kg		10	Meets spec	European Pharmacopoeia
Halogenated compounds	mg/kg		30	Meets spec	European Pharmacopoeia
Chlorides	mg/kg		10	Meets spec	European Pharmacopoeia
Sugars			Negative	negative	European Pharmacopoeia
Acroleine, Glucose, Ammoniumcompounds			Negative	negative	REG(EU) 231/2012 no E422
Assay	%(m/m)	99,5		99,7	European Pharmacopoeia

Compliance with the items listed below is assured through regular monitoring analyses performed at an external lab.

<i>Identity A, B, C, D</i>		<i>pass</i>		<i>pass</i>	<i>European Pharmacopoeia</i>
<i>Arsenic</i>	<i>mg/kg</i>		<i>max 0,1</i>		<i>DIN EN 15763</i>
<i>Mercury</i>	<i>mg/kg</i>		<i>max 0,1</i>		<i>SOPM2567</i>
<i>Cadmium</i>	<i>mg/kg</i>		<i>max 1</i>		<i>DIN EN 15763</i>
<i>Lead</i>	<i>mg/kg</i>		<i>max 0,1</i>		<i>DIN EN 15763</i>
<i>Nickel</i>	<i>mg/kg</i>		<i>max 20</i>		<i>DIN EN 15763</i>
<i>Sodium</i>	<i>% (m/m)</i>		<i>max 0,1</i>		<i>DIN EN 15510</i>
<i>Potassium</i>	<i>%(m/m)</i>		<i>max 0,1</i>		<i>DIN EN 15510</i>
<i>Sulfates</i>	<i>mg/kg</i>		<i>max 20</i>		<i>US Pharmacopoeia</i>
<i>Sulphated ash</i>	<i>%(m/m)</i>		<i>max 0,01</i>		<i>European Pharmacopoeia</i>
<i>Impurity A (DEG)</i>	<i>%(m/m)</i>		<i>max 0,1</i>		<i>European Pharmacopoeia</i>
<i>Any other impurity retention time less Glyc</i>	<i>%(m/m)</i>		<i>max 0,1</i>		<i>European Pharmacopoeia</i>
<i>Total of all impurities retention time greater Glyc</i>	<i>%(m/m)</i>		<i>max 0,5</i>		<i>European Pharmacopoeia</i>
<i>Butanetriols</i>	<i>%(m/m)</i>		<i>max 0,2</i>		<i>GC/MS</i>
<i>Acroleine</i>			<i>Confirms</i>		<i>REG(EU) 231/2012 no E422</i>
<i>Fatty acids and esters</i>	<i>%</i>		<i>max 0,1</i>		<i>Calculated as butyric acid</i>
<i>3-MCPD</i>	<i>mg/kg</i>		<i>max 0,1</i>		<i>GC/MS</i>

This product complies with the requirements of the current version of the European Pharmacopoeia, USP, the EU Regulation 231/2012 for food additives (Glycerol (E422)), the EU feed legislation 68/2013 (feed materials No 13.8.2) and the Codex Alimentarius.

Neither illegal food dyes nor other additives are added. Contaminants like dioxins, mycotoxines, PAH, PCB, pesticides meet the criteria.

We declare to the best of our knowledge the product is not subject to mandatory labelling, with observation of all legal and customary duties of

The shelf life of BIOPETROL glycerine is 24 months EXW (date at Weight Certificate decisive) when stored and handled under appropriate

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