

Date 13-NOV-2019 Page 1 / 4
 Order 32677216 / 000003
 Your Order number SYM19/0481 - 37/19
 Delivery 82926119 / 000002
 Partner-No. 20127065
 Contact person Alexandra Rabke
 Supply Chain - Customer Service
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Material: **600012**
MENTHOL LAEVO PELLETS PH
 Batch/Lot: 10300279 200,000 KG
 Storage: dry, 10 to 30°C
 Date produced OCT 2019
 Best before SEP 2021

Characteristics	Value	Lower Limit	Upper Limit
Taste in test solution			
0605 Taste in testsolution "sweet" for Flavor 40 ppm, premix in ethanol	according to standard 1) comparable to standard		
0223 Top note	according to standard 1) comparable to standard		
Color / Appearance, as is			
0864 Visual evaluation in sample vial	passed test		
Color			
0864 Visual evaluation in sample vial	1) pale white to white		
Appearance/condition			
0864 Visual evaluation in sample vial	1) pelletized crystals		
Identification A (Pharmacopoeia)			
0695 Identity test A (EUR. PH.)	Degree -49,8	-51	-48
Identification C (Eur. Ph.) KRI			
1024 GC purity of Menthol Laevo Comp. PH	1160	1152	1162

Characteristics	Value	Lower Limit	Upper Limit
Metals and heavy metals			
0340 Determination by AAS or ICP			
Zinc	2)mg/kg	Not Inspected	max. 10
Titanium	2)mg/kg	Not Inspected	max. 10
GC-Impurities			
1024 GC purity of Menthol Laevo Comp. PH			
Unspecified impurities < 0.10%	< 0.10 %		
	1) < 0.10 %		
Content			
1024 GC purity of Menthol Laevo Comp. PH			
MENTHOL LAEVO KOMP.	Area % 99,98	99,70	100,00
sum of impurities	Area % 0,0	max.	1,0
GLC, Headspace			
0037 GLC Headspace			
Methanol	ppm < 10	max.	50
Acetone	ppm < 10	max.	200
Assay (Pharmacopoeia)			
0770 GLC (USP/NF)	% 100,0	98,0	102,0
Identification (Pharmacopoeia)			
0693 Identity test A (USP/NF)	passed test		
	1) passed test		
0696 Identity test B (USP/NF)	passed test		
	1) passed test		
Acidic or basic reacting substances			
0705 Acidity or alkalinity (EUR.PH.)	ml 0,17	max.	0,5
Nonvolatile residue (Pharmacopoeia)			
0723 Nonvolatile residue (EUR. PH.)	% 0,00	max.	0,05
0724 Nonvolatile residue (USP/NF)	% 0,00	max.	0,05
0726 Nonvolatile residue (FCC)	% 0,00	max.	0,05
Appearance of the solution, Pharmacopoeia			
0727 Appearance and colour of Solution	passed test		
	1) passed test		

Characteristics	Value	Lower Limit	Upper Limit
Melting point (Pharmacopoeia)			
0734 Melting point (FCC)	°C 42,6	41	44
0735 Melting point (USP/NF)	°C 42,6	41	44
Specific rotation (Pharmacopoeia)			
0740 Specific rotation 25°C (FCC)	Degree -49,6	-51	-45
0741 Specific rotation 25°C (USP/NF)	Degree -49,6	-51	-45
Related substances (Pharmacopoeia)			
1024 GC purity of Menthol Laevo Comp. PH Eur. Ph. 9.5	% 0,02	0,00	0,30
Related substances (Pharmacopoeia)			
0770 GLC (USP/NF)			
all impurities < 2,0%	passed test		
	1) passed test		
any individual impurity < 0,3%	passed test		
	1) passed test		
Organic volatile impurities			
0769 GLC (USP/NF)			
Methanol	passed test		
	1) passed test		
Acetone	passed test		
	1) passed test		
IR spectrum			
0253 IR identity FCC	passed test		
	1) passed test		
Pharmacopoeia			
0855 Eur. Ph.			
Eur. Ph. 9.7	passed test		
	1) passed test		
0855 USP/NF			
USP 42 / NF 37	passed test		
	1) passed test		
0855 BP			
BP 2019	passed test		
	1) passed test		

Characteristics	Value	Lower Limit	Upper Limit
Monograph			
0855 FCC			
FCC 11	passed test 1) passed test		

For information only

Flashpoint (CC)	°C	approx. 94
	°F	approx. 201

Annotation:

- 1) Target
- 2) Intermittent tested. This time skipped.

The certificate does not release the user from the responsibility of undertaking his own tests of the characteristics of the product and its suitability in the intended application.

This is a computer generated certificate of analysis and is therefore not signed by hand. The positive release procedure and the stringent workflow of the computerized system ensure the same level of reliability as a handwritten signature.