

## Certificate of Analysis

Bestätigung der ordentlichen Prüfung

<b>Product:</b> Produkt	Norspan 10 CL VK2	<b>Article-No.:</b> Artikel-Nr.	3319714
<b>Country:</b> Importland	Chile	<b>Order No.:</b> Auftrags-Nr.	1062872
<b>LTS Lot-No.:</b> LTS Ch.-B.	7112278A	<b>Customer-Lot No.:</b> Kunden Ch.-B.	70338B103
<b>Date of manufacture:</b> Herstelldatum	09.03.2018	<b>Expiry Date:</b> Verfalldatum	02.2020

Test parameters Prüfpunkte	Specified soll	Result Ergebnis
Appearance	Corresponds to requirement	corresponds
Identity by Marquis	Violet spot after application of one drop of Marquis' reagent	corresponds, violet spot
Identity by HPLC	The ratio of the retention times of the peaks of active principle and standard should range between 0.95 - 1.05.	Retention time corresponds
Dimension reservoir 25x50 +- 0.5mm	Corresponds to requirement	corresponds
Dimension coloured web 45x68 +- 2.0mm	Corresponds to requirement	corresponds
Content / mean	9.8 - 10.8 mg/TTS	10.3 mg/TTS
Content uniformity EP 2.9.6 test C	Average content of 10 units between 90-110% of content stated on label claim; individual content of each unit is between 75-125% of average content	corresponds to EP 2.9.6 test C
Content uniformity EP 2.9.40 acc. value	nmt. 15.0	3.5
Content uniformity EP 2.9.40 level	Content uniformity EP 2.9.40	corresponds EP 2.9.40 level 1 (n=10)
In vitro release 0,5h / mean	15 - 35 %	27 %
In vitro release 0,5h / min	nlt. 15 %	26 %
In vitro release 0,5h / max	nmt. 35 %	28 %
In vitro release 2h / mean	30 - 70 %	59 %
In vitro release 2h / min	nlt. 30 %	58 %
In vitro release 2h / max	nmt. 70 %	59 %
In vitro release 24h / mean	nlt. 80 %	103 %
In vitro release 24h / min	nlt. 80 %	102 %
In vitro release 24h / max	nlt. 80 %	105 %
In vitro release 0,5h / mean	120 - 280 µg/cm <sup>2</sup>	218 µg/cm <sup>2</sup>
In vitro release 0,5h / min	nlt. 120 µg/cm <sup>2</sup>	210 µg/cm <sup>2</sup>
In vitro release 0,5h / max	nmt. 280 µg/cm <sup>2</sup>	225 µg/cm <sup>2</sup>
In vitro release 2h / mean	240 - 560 µg/cm <sup>2</sup>	468 µg/cm <sup>2</sup>
In vitro release 2h / min	nlt. 240 µg/cm <sup>2</sup>	462 µg/cm <sup>2</sup>

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Test parameters Prüfpunkte	Specified soll	Result Ergebnis
In vitro release 2h / max	nmt. 560 µg/cm2	472 µg/cm2
In vitro release 24h / mean	nlt. 640 µg/cm2	822 µg/cm2
In vitro release 24h / min	nlt. 640 µg/cm2	813 µg/cm2
In vitro release 24h / max	nlt. 640 µg/cm2	838 µg/cm2
In vitro release 0,5h / mean	1.5 - 3.5 mg/TTS	2.7 mg/TTS
In vitro release 0,5h / min	nlt. 1.5 mg/TTS	2.6 mg/TTS
In vitro release 0,5h / max	nmt. 3.5 mg/TTS	2.8 mg/TTS
In vitro release 2h / mean	3.0 - 7.0 mg/TTS	5.9 mg/TTS
In vitro release 2h / min	nlt. 3.0 mg/TTS	5.8 mg/TTS
In vitro release 2h / max	nmt. 7.0 mg/TTS	5.9 mg/TTS
In vitro release 24h / mean	nlt. 8.0 mg/TTS	10.3 mg/TTS
In vitro release 24h / min	nlt. 8.0 mg/TTS	10.2 mg/TTS
In vitro release 24h / max	nlt. 8.0 mg/TTS	10.5 mg/TTS
Rel.subst.: Norbuprenorphine	nmt. 1.0 %	0.1 %
Rel.subst.: Buprenorphine-N-oxide	nmt. 0.5 %	< 0.1 %
Rel.subst.: Individual unknown	nmt. 0.5 %	< 0.1 %
Rel.subst.: Total	nmt. 1.5 %	0.1 %
Pouch integrity	Tightness of pouches corresponds	corresponds = Pouches tight
Imprint TTS / Pouch	Imprint consistent and legible	Imprint corresponds
Peel adhesion / mean	3.0 - 50.0 Newton/TTS	17.1 Newton/TTS
Release strength / mean	10 - 200 cN/TTS	66 cN/TTS
Residual solvents: Toluene	nmt. 0.002 %	< 0.001 %
Residual solvents: Isopropanol	nmt. 0.002 %	< 0.001 %
Residual solvents: Ethylacetate	nmt. 0.070 %	0.006 %
Residual solvents: n-Heptane	nmt. 0.050 %	0.003 %
Residual solvents: Acetyl acetone	nmt. 0.020 %	< 0.001 %
Residual solvents: Ethanol	nmt. 0.050 %	0.002 %
Microbiology - periodical monitoring	MIBI - periodical monitoring - performed once a year	This batch was not tested

#### Used API

0020200, Buprenorphine TEX, 132030, Tasmanian Alkaloids PTY.

This report was approved and released by the responsible Head of QC electronically, and is valid without manual signature.

## Certificate of Compliance

Bestätigung der ordentlichen Herstellung

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<b>LTS Lot-No.:</b> LTS Ch.-B.	7112278A	<b>Customer-Lot No.:</b> Kunden Ch.-B.	70338B103
<b>Date of manufacture:</b> Herstelldatum	09.03.2018	<b>Expiry Date:</b> Verfalldatum	02.2020

<b>Manufacturing site:</b> Herstellungsstätte/Ort	LTS Lohmann Therapie-Systeme AG, Lohmannstr.2, 56626 Andernach, Germany
<b>Manufacturing license No.:</b> Nr. Herstellungserlaubnis	DE_RP_01_MIA_2011_0023
<b>GMP Certificate No.:</b> GMP Zertifikatsnummer	DE_RP_01_GMP_2018_0005

OOS / Deviations, OOS / Abweichungen	Number, Nummer
No confirmed OOS-Results / Keine bestätigten OOS-Ergebnisse	-
No reportable Deviations / Keine zu berichtenden Abweichungen	-

Customer specific Info / Kundenspez. Infor	Number, Nummer
Quantity released:	14806 ST

Registration No: F-22125/15  
 Strength/Potency: 10 mg/TTS 10 µg/1 h Buprenorphin  
 Dosage Form: TTS  
 Package size and type: 2 Pouches per box  
 Customer Material No: 201054 & 95005089

This document was signed electronically and is valid without manual signature.

### Release for shipment

I hereby confirm that the manufacturing stages referred to in the Technical Quality Agreement have been carried out in full compliance with the GMP requirements of the EU and the terms described in the Agreement for ensuring compliance with the requirements of the Marketing Authorisation(s) as provided by

Mundipharma International Limited  
 Quality technical Agreement: 18.05.2017

**Date**  
 03.05.2018

**Time**  
 21:10:25

**Signatur Qualified Person**  
 Dr. Anita Noeske