

Certificate of Analysis

Bestätigung der ordentlichen Prüfung

| | | | |
|-----------------------------|------------------|--------------------------|-----------|
| Product: | Norspan 5 CL VK2 | Article-No.: | 3319713 |
| Produkt | | Artikel-Nr. | |
| Country: | Chile | Order No.: | 1060689 |
| Importland | | Auftrags-Nr. | |
| LTS Lot-No.: | 7210227AA | Customer-Lot No.: | 70967A114 |
| LTS Ch.-B. | | Kunden Ch.-B. | |
| Date of manufacture: | 05.10.2017 | Expiry Date: | 09.2019 |
| Herstelldatum | | Verfalldatum | |

| Test parameters Prüfpunkte | Specified soil | 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 25x25 +- 0.5mm | Corresponds to requirement | corresponds |
| Dimension coloured web 45x45 +- 2.0mm | Corresponds to requirement | corresponds |
| Content / mean | 4.9 - 5.4 mg/TTS | 5.2 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 | 4.2 |
| 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 % | 27 % |
| In vitro release 0.5h / max | nmt. 35 % | 28 % |
| In vitro release 2h / mean | 30 - 70 % | 57 % |
| In vitro release 2h / min | nlt. 30 % | 56 % |
| In vitro release 2h / max | nmt. 70 % | 58 % |
| In vitro release 24h / mean | nlt. 80 % | 102 % |
| In vitro release 24h / min | nlt. 80 % | 101 % |
| In vitro release 24h / max | nlt. 80 % | 103 % |
| In vitro release 0.5h / mean | 120 - 280 µg/cm2 | 217 µg/cm2 |
| In vitro release 0.5h / min | nlt. 120 µg/cm2 | 213 µg/cm2 |
| In vitro release 0.5h / max | nmt. 280 µg/cm2 | 221 µg/cm2 |
| In vitro release 2h / mean | 240 - 560 µg/cm2 | 458 µg/cm2 |
| In vitro release 2h / min | nlt. 240 µg/cm2 | 452 µg/cm2 |

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Produkt
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LTS Ch.-B.

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| Test parameters | Prüfpunkte | Specified soil | Result | Ergebnis |
|--------------------------------------|--|-----------------------------|--------|----------|
| In vitro release 2h / max | nmt. 560 µg/cm2 | 462 µg/cm2 | | |
| In vitro release 24h / mean | nlt. 640 µg/cm2 | 818 µg/cm2 | | |
| In vitro release 24h / min | nlt. 640 µg/cm2 | 808 µg/cm2 | | |
| In vitro release 24h / max | nlt. 640 µg/cm2 | 825 µg/cm2 | | |
| In vitro release 0.5h / mean | 0.75 - 1.75 mg/TTS | 1.35 mg/TTS | | |
| In vitro release 0.5h / min | nlt. 0.75 mg/TTS | 1.33 mg/TTS | | |
| In vitro release 0.5h / max | nmt. 1.75 mg/TTS | 1.38 mg/TTS | | |
| In vitro release 2h / mean | 1.5 - 3.5 mg/TTS | 2.9 mg/TTS | | |
| In vitro release 2h / min | nlt. 1.5 mg/TTS | 2.8 mg/TTS | | |
| In vitro release 2h / max | nmt. 3.5 mg/TTS | 2.9 mg/TTS | | |
| In vitro release 24h / mean | nlt. 4.0 mg/TTS | 5.1 mg/TTS | | |
| In vitro release 24h / min | nlt. 4.0 mg/TTS | 5.0 mg/TTS | | |
| In vitro release 24h / max | nlt. 4.0 mg/TTS | 5.2 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 | 14.5 Newton/TTS | | |
| Release strength / mean | 10 - 200 cN/TTS | 40 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 6506481, Buprenorphine Geel 2, A17AB0438, Janssen Pharmaceutica
Used API 6506481, Buprenorphine Geel 2, A17AB0456, Janssen Pharmaceutica

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

| | | | |
|--|------------------|---|-----------|
| Product: Produkt | Norspan 5 CL VK2 | | |
| Country: Importland | Chile | Article-No.: Artikel-Nr. | 3319713 |
| LTS Lot-No.: LTS Ch.-B. | 7210227AA | Order No.: Auftrags-Nr. | 1060689 |
| Date of manufacture: Herstelldatum | 05.10.2017 | Customer-Lot No.: Kunden Ch.-B. | 70967A114 |
| | | Expiry Date: Verfalldatum | 09.2019 |

Manufacturing site: LTS Lohmann Therapie-Systeme AG, Lohmannstr.2, 56626
 Herstellungssätte/Ort: Andernach, Germany

Manufacturing license No.: DE_RP_01_MIA_2011_0023

Nr. Herstellungserlaubnis

GMP Certificate No.: DE_RP_01_GMP_2016_0024

GMP Zertifikatsnummer

| | |
|---|----------------|
| 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: | 15980 ST |

Registration No: F-22124/15
 Strength/Potency: 5 mg/TTS 5 µg/1 h Buprenorphin
 Dosage Form: TTS
 Package size and type: 2 Pouches per box
 Customer Material No: 201053/95005088

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

Release for shipment

I hereby certify that the above information is authentic and accurate.
 This batch of product has been manufactured, including packaging/labelling and quality control at the above mentioned site in full compliance with the GMP requirements of the local Regulatory Authority and with the specifications in the Marketing Authorization of the importing country.

The batch processing, packaging and analysis records were reviewed and found to be in compliance with GMP.

| | | |
|---|-------------|----------------------------------|
| Date | Time | Signatur Qualified Person |
| 16.01.2018 | 14:38:37 | Dr. Anita Noeske |
| LTS Lohmann Therapie-Systeme AG Lohmannstr. 2 | | D-56626 Andernach |
| 030000191354 | | |