

20, AVENUE APPIA - CH-1211 Geneva 27 - Switzerland - Tel central + 41 22 791 2111 - Fax central + 41 22 791 3111 - Jwww.who.int

# Prequalification Team Inspection services WHO PUBLIC INSPECTION REPORT (WHOPIR)

Desk Assessment of Quality Control Laboratory (QCL)

Part 1	General information				
Laboratory info	ormation				
Name and address of QCL	Intertek (Schweiz) AG TechCenter Reinach, Kägenstrasse 18, 4153, Reinach BL, Switzerland				
Laboratory units/divisio ns	Not applicable				
Desk assessmen	t details				
Start and end dates of review	18 March 2019 and 10 M	May 2019.			
Tests covered by this desk assessment	Type of Analysis	Finished Products	Active pharmaceutical ingredients		
	Physical/Chemical analysis	pH, water content (NMR)	pH, water content (NMR)		
	Identification tests	HPLC (detectors: UV-VIS, RI, ELSD, FLD, ECD, MS, HR-MS), GC (FID, MS), spectroscopy: FTIR, UV-VIS, NMR, microscopy: Raman imaging, FTIR imaging, SEM-EDX, TEM	HPLC (detectors: UV- VIS, RI, ELSD, FLD, ECD, MS, HR-MS), GC (FID, MS), spectroscopy: FTIR, UV-VIS, NMR, microscopy: Raman imaging, FTIR imaging, SEM-EDX, TEM		
	Assay, impurities and related substances	HPLC (detectors: UV- VIS, RI, ELSD, FLD, ECD, MS, HR-MS), GC (FID, MS), spectroscopy: FTIR, UV-VIS, Raman, NMR	HPLC (detectors: UV- VIS, RI, ELSD, FLD, ECD, MS, HR-MS), GC (FID, MS), spectroscopy: FTIR, UV-VIS, Raman, NMR		
	Microbiological analysis	Subcontracted	Subcontracted		
	Miscellaneous - Counterfeit, substandard and forensic	HPLC (detectors: UV- VIS, RI, ELSD, FLD, ECD, MS, HR-MS), GC (FID, MS),	HPLC (detectors: UV- VIS, RI, ELSD, FLD, ECD, MS, HR-MS), GC (FID, MS),		



20, AVENUE APPIA - CH-1211 Geneva 27 - Switzerland - Tel central + 41 22 791 2111 - Fax central + 41 22 791 3111 - www.who.int

LIF L1407-02 WHO_ed3-2017  Ref-1-Swissmedic-GMP-Certificate_EN-DE  Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German)  Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)  Ref-4-ISO-Certificate-Reinach_2015 Ref-5-IQ-NET-Certificate-Reinach-2015 Ref-6-Certificate of Registration 2017 (Provided in German)  Ref-8- GLP-Certificate-2017 Ref-9-List of general SOPs Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017 Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018) Copy of ISO 9001:2015 certificate EIR_FDA inspection report_cover_letter_20180312.pdf 18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019) Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  None  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Dates of inspection: 24 - 25 April 2018 Type of inspection: Basic inspection  Basic inspection  Basic inspection  Type of inspection: Basic inspection	20, AVENUE AP	PIA – CH-1211 GENEVA 27 – SWITZERLAND – T	T	<del>-</del>		
microscopy: Raman imaging, FTIR imaging, SEM-EDX, TEM  Miscellancous - Particle analysis: Foreign matter investigation  Miscellancous - Particle analysis: FTIR, UV-VIS spectroscopy, Raman imaging, FTIR imaging, SEM-EDX, TEM imaging, SEM-EDX, TEM microscopy, Raman imaging, FTIR imaging, SEM-EDX, TEM, microscopy, NMR  List of documents submitted  • Cover-Letter_Laboratory-Information-File-WHO_ed3-2017 signed  • LiF L1407-02 WHO_ed3-2017  • Ref-1-Swissmedie-GMP-Certificate_EN-DE  • Ref-2-GMP-Swissmedie-GMP-Certificate_EN-DE  • Ref-3-Inspection-Correspondence-Swissmedie-RHI-2015 (Provided in German)  • Ref-4-ISO-Certificate-Reinach_2015  • Ref-6-Certificate of Registration 2017 (Provided in German)  • Ref-7- Isite Master File  • Ref-8-GLP-Certificate-2017  • Ref-11-Site-Plans-Reinach-2017  • Ref-11-Site-Plans-Reinach-2017  • Ref-13-Decision-Tree-OOS  Additional documents submitted (18 March 2019)  • Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Dates of inspection: 24-25 April 2018  Regionales Heldimitted-Immed-Impercion		investigation		= = = = = = = = = = = = = = = = = = = =		
imaging, FTIR imaging, SEM-EDX, TEM  Miscellancous - Foreign matter FTIR, UV-VIS spectroscopy, Raman imaging, FTIR imaging, SEM-EDX, TEM  Miscellancous - FOREIGN SPECTROSCOPY, Raman imaging, FTIR imaging, SEM-EDX, TEM, microscopy, NMR imaging, FTIR imaging, SEM-EDX, TEM, microscopy, NMR  List of locuments submitted  • Cover-Letter_Laboratory-Information-File-WHO_ed3-2017_signed  • LIF L1407-02 WHO_ed3-2017  • Ref-1-Swissmedic-GMP-Certificate_EN-DE  • Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German)  • Ref-4-ISO-Certificate-Reinach_2015  • Ref-5-IQ-NET-Certificate-Reinach_2015  • Ref-6-Certificate of Registration 2017 (Provided in German)  • Ref-7-Site Master File  • Ref-9-List of general SOPs  • Ref-11-Site-Plans-Reinach-2017  • Ref-11-Site-Plans-Reinach-2017  • Ref-11-Site-Plans-Reinach-2017  • Ref-13-Decision-Tree-OOS  Additional documents submitted (18 October 2018)  • Copy of ISO 9001:2015 certificate  • EIR_FDA inspection report_cover_letter_20180312.pdf  • 18-2280 GMP-Certificate 20181114-Intertck(Schweiz)AG.pdf  Additional documents submitted (18 March 2019)  • Inspektionsbericht_RHI_24-25.04.2018_GMP-Basis.pdf  Any  documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  24 - 25 April 2018  Type of inspection:  24 - 25 April 2018			1			
maging, SEM-EDX, TEM   maging, SEM-EDX, TEM			1 · ·	1.0		
Miscellaneous - Foreign matter investigation			U 0,	C C.		
Miscellaneous -   Foreign matter investigation   Spectroscopy, Raman imaging, FTIR, UV-VIS spectroscopy, Raman imaging, FTIR imaging, SEM-EDX, TEM, microscopy, NMR   Spectroscopy, Raman imaging, FTIR imaging, SEM-EDX, TEM, microscopy, NMR   NMR   NMR   NMR   NMR   NMR   NMR   Submitted   Cover-Letter_Laboratory-Information-File-WHO_ed3-2017_signed   LIF L1407-02 WHO_ed3-2017   Ref-1-Swissmedic-GMP-Certificate_EN-DE   Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German)   Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)   Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)   Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)   Ref-3-IO-NET-Certificate-Reinach-2015   Ref-6-Certificate of Registration 2017 (Provided in German)   Ref-9-List of general SOPs   Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017   Ref-11-Site-Plans-Reinach-2017   Ref-12-Equipment_List 2017   Ref-13-Decision-Tree-OOS   Additional documents submitted (18 October 2018)   Copy of ISO 9001:2015 certificate   EIR FDA inspection report_cover_letter_20180312.pdf   18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf   Additional documents submitted (18 March 2019)   Inspektionsbericht_RHI_24-25.04.2018_GMP-Basis.pdf   None   None   Summary of SRA/NRA inspection evidence considered (from most recent to last)   Dates of inspection:   24-25 April 2018   Type of inspection:   Basic inspection			0 0			
Foreign matter investigation  FIR, UV-VIS spectroscopy, Raman imaging, FTIR imaging, FTIR imaging, FTIR imaging, FTIR imaging, FFIR, microscopy, NMR  List of documents submitted  • Cover-Letter Laboratory-Information-File-WHO_ed3-2017_signed • LIF L1407-02 WHO_ed3-2017 • Ref-1-Swissmedic-GMP-Certificate_EN-DE • Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German) • Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German) • Ref-4-ISO-Certificate-Reinach_2015 • Ref-5-Q-NET-Certificate-Reinach_2015 • Ref-6-Certificate of Registration 2017 (Provided in German) • Ref-8- GLP-Certificate-Reinach-2017 • Ref-9-List of general SOPs • Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017 • Ref-11-Site-Plans-Reinach-2017 • Ref-12-Equipment_List 2017 • Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018) • Copy of ISO 9001:2015 certificate • EIR_FDA inspection report_cover_letter_20180312.pdf • 18-2280_GMP-Certificate 20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019) • Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  24-25 April 2018  Type of inspection:		Missellaneaus				
investigation spectroscopy, Raman imaging, FTIR imaging, SEM-EDX, TEM, microscopy, NMR imaging,			_	1		
imaging, FTIR imaging, SEM-EDX, TEM, microscopy, NMR  List of documents submitted  • Cover-Letter_Laboratory-Information-File-WHO_ed3-2017_signed • LIF L1407-02 WHO_ed3-2017 • Ref-1-Swissmedic-GMP-Certificate_EN-DE • Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German) • Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German) • Ref-1-Site Master File • Ref-9-List of general SOPs • Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017 • Ref-11-Site-Plans-Reinach-2017 • Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018) • Copy of ISO 9001:2015 certificate • EIR_FDA inspection report_cover_letter_20180312.pdf • 18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019) • Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  24 - 25 April 2018  Type of inspection:  Basic inspection				1 '		
List of documents submitted    Cover-Letter_Laboratory-Information-File-WHO_ed3-2017_signed		Investigation	1 * * * * * * * * * * * * * * * * * * *	1		
List of documents submitted  • Cover-Letter Laboratory-Information-File-WHO_ed3-2017_signed • LIF L1407-02 WHO_ed3-2017 • Ref-1-Swissmedic-GMP-Certificate_EN-DE • Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German) • Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German) • Ref-4-ISO-Certificate-Reinach_2015 • Ref-6-Certificate of Registration 2017 (Provided in German) • Ref-7- Site Master File • Ref-8- GLP-Certificate-Reinach-2017 • Ref-9-List of general SOPs • Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017 • Ref-11-Site-Plans-Reinach-2017 • Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018) • Copy of ISO 9001:2015 certificate • EIR_FDA inspection report_cover_letter_20180312.pdf • 18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019) • Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  None  None  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  24 - 25 April 2018  Type of inspection:  Basic inspection						
List of documents submitted  • Cover-Letter_Laboratory-Information-File-WHO_ed3-2017_signed ed-documents submitted  • LIF L1407-02 WHO_ed3-2017 • Ref-1-Swissmedic-GMP-Certificate_EN-DE • Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German) • Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German) • Ref-4-ISO-Certificate-Reinach_2015 • Ref-5-IQ-NET-Certificate-Reinach_2015 • Ref-6-Certificate of Registration 2017 (Provided in German) • Ref-7- Site Master File • Ref-8- GLP-Certificate-2017 • Ref-9-List of general SOPs • Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017 • Ref-11-Site-Plans-Reinach-2017 • Ref-12-Equipment_List 2017 • Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018) • Copy of ISO 9001:2015 certificate • EIR_FDA inspection report_cover_letter_20180312.pdf • 18-2280_GMP-Certificate 20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019) • Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  Basic inspection						
Cover-Letter_Laboratory-Information-File-WHO_ed3-2017_signed						
LIF L1407-02 WHO_ed3-2017  Ref-1-Swissmedic-GMP-Certificate_EN-DE  Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German)  Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)  Ref-4-ISO-Certificate-Reinach_2015 Ref-5-IQ-NET-Certificate-Reinach-2015 Ref-6-Certificate of Registration 2017 (Provided in German)  Ref-8- GLP-Certificate-2017 Ref-9-List of general SOPs Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017 Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018) Copy of ISO 9001:2015 certificate EIR_FDA inspection report_cover_letter_20180312.pdf 18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019) Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  None  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Dates of inspection: 24 - 25 April 2018 Type of inspection: Basic inspection  Basic inspection  Basic inspection  Type of inspection: Basic inspection						
**Ref-1-Swissmedic-GMP-Certificate_EN-DE**  Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German)  Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)  Ref-4-ISO-Certificate-Reinach_2015  Ref-5-IQ-NET-Certificate-Reinach_2015  Ref-6-Certificate of Registration 2017 (Provided in German)  Ref-7- Site Master File  Ref-8- GLP-Certificate-2017  Ref-9-List of general SOPs  Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017  Ref-12-Equipment_List 2017  Ref-13-Decision-Tree-OOS  Additional documents submitted (18 October 2018)  Copy of ISO 9001:2015 certificate  EIR_FDA inspection report_cover_letter_20180312.pdf  18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf  Additional documents submitted (18 March 2019)  Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  None  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection: 24 - 25 April 2018  Type of inspection: Basic inspection		<u> </u>	•	-WHO_ed3-2017_signed		
Ref-2-GMP-Swissmedic-Bewilligung-November 2016-Reinach (Provided in German)     Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)     Ref-4-ISO-Certificate-Reinach_2015     Ref-5-IQ-NET-Certificate-Reinach-2015     Ref-6-Certificate of Registration 2017 (Provided in German)     Ref-7- Site Master File     Ref-8- GLP-Certificate-2017     Ref-9-List of general SOPs     Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017     Ref-11-Site-Plans-Reinach-2017     Ref-12-Equipment_List 2017     Ref-13-Decision-Tree-OOS     Additional documents submitted (18 October 2018)     Copy of ISO 9001:2015 certificate     EIR_FDA inspection report_cover_letter_20180312.pdf     18-2280_GMP-Certificate 20181114-Intertek(Schweiz)AG.pdf     Additional documents submitted (18 March 2019)     Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Dates of inspection: 24 – 25 April 2018  Regionales Hellmittel-  Type of inspection: Basic inspection	documents					
(Provided in German)  Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)  Ref-4-ISO-Certificate-Reinach_2015  Ref-5-IQ-NET-Certificate-Reinach-2015  Ref-6-Certificate of Registration 2017 (Provided in German)  Ref-7- Site Master File  Ref-8- GLP-Certificate-2017  Ref-9-List of general SOPs  Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017  Ref-11-Site-Plans-Reinach-2017  Ref-12-Equipment_List 2017  Ref-13-Decision-Tree-OOS  Additional documents submitted (18 October 2018)  Copy of ISO 9001:2015 certificate  EIR_FDA inspection report_cover_letter_20180312.pdf  Ref-18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf  Additional documents submitted (18 March 2019)  Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any  documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Dates of inspection:  24 - 25 April 2018  Regionales Helimintel-  Type of inspection:  Basic inspection	submitted	Ref-1-Swissmedic	c-GMP-Certificate_EN-D	DΕ		
Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in German)     Ref-4-ISO-Certificate-Reinach_2015     Ref-5-IQ-NET-Certificate-Reinach-2015     Ref-6-Certificate of Registration 2017 (Provided in German)     Ref-7- Site Master File     Ref-8- GLP-Certificate-2017     Ref-9-List of general SOPs     Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017     Ref-11-Site-Plans-Reinach-2017     Ref-12-Equipment_List 2017     Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018)     Copy of ISO 9001:2015 certificate     EIR_FDA inspection report_cover_letter_20180312.pdf     18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019)     Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  Basic inspection						
German)  Ref-4-ISO-Certificate-Reinach_2015  Ref-5-IQ-NET-Certificate-Reinach_2015  Ref-6-Certificate of Registration 2017 (Provided in German)  Ref-7- Site Master File  Ref-8- GLP-Certificate-2017  Ref-9-List of general SOPs  Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017  Ref-11-Site-Plans-Reinach-2017  Ref-12-Equipment_List 2017  Ref-13-Decision-Tree-OOS  Additional documents submitted (18 October 2018)  Copy of ISO 9001:2015 certificate  EIR_FDA inspection report cover_letter_20180312.pdf  18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf  Additional documents submitted (18 March 2019)  Inspektionsbericht_RHI_24-25.04.2018_GMP-Basis.pdf  Any  documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  Basic inspection						
Ref-4-ISO-Certificate-Reinach_2015  Ref-5-IQ-NET-Certificate-Reinach-2015  Ref-6-Certificate of Registration 2017 (Provided in German)  Ref-7- Site Master File  Ref-8- GLP-Certificate-2017  Ref-9-List of general SOPs  Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017  Ref-11-Site-Plans-Reinach-2017  Ref-12-Equipment_List 2017  Ref-13-Decision-Tree-OOS  Additional documents submitted (18 October 2018)  Copy of ISO 9001:2015 certificate  EIR_FDA inspection report_cover_letter_20180312.pdf  18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf  Additional documents submitted (18 March 2019)  Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  Basic inspection  Type of inspection:  Basic inspection		Ref-3-Inspection-Correspondence-Swissmedic-RHI-2015 (Provided in				
<ul> <li>Ref-5-IQ-NET-Certificate-Reinach-2015</li> <li>Ref-6-Certificate of Registration 2017 (Provided in German)</li> <li>Ref-7- Site Master File</li> <li>Ref-8- GLP-Certificate-2017</li> <li>Ref-9-List of general SOPs</li> <li>Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017</li> <li>Ref-11-Site-Plans-Reinach-2017</li> <li>Ref-12-Equipment_List 2017</li> <li>Ref-13-Decision-Tree-OOS</li> <li>Additional documents submitted (18 October 2018)</li> <li>Copy of ISO 9001:2015 certificate</li> <li>EIR_FDA inspection report_cover_letter_20180312.pdf</li> <li>18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf</li> <li>Additional documents submitted (18 March 2019)</li> <li>Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf</li> </ul> Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Type of inspection:  24 - 25 April 2018  Type of inspection:  Basic inspection		German)  Ref-4-ISO-Certificate-Reinach_2015  Ref-5-IQ-NET-Certificate-Reinach-2015  Ref-6-Certificate of Registration 2017 (Provided in German)				
<ul> <li>Ref-6-Certificate of Registration 2017 (Provided in German)</li> <li>Ref-7- Site Master File</li> <li>Ref-8- GLP-Certificate-2017</li> <li>Ref-9-List of general SOPs</li> <li>Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017</li> <li>Ref-11-Site-Plans-Reinach-2017</li> <li>Ref-12-Equipment_List 2017</li> <li>Ref-13-Decision-Tree-OOS</li> <li>Additional documents submitted (18 October 2018)</li> <li>Copy of ISO 9001:2015 certificate</li> <li>EIR_FDA inspection report_cover_letter_20180312.pdf</li> <li>18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf</li> <li>Additional documents submitted (18 March 2019)</li> <li>Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf</li> </ul> Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Dates of inspection:  24 - 25 April 2018  Type of inspection:  Basic inspection						
<ul> <li>Ref-6-Certificate of Registration 2017 (Provided in German)</li> <li>Ref-7- Site Master File</li> <li>Ref-8- GLP-Certificate-2017</li> <li>Ref-9-List of general SOPs</li> <li>Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017</li> <li>Ref-11-Site-Plans-Reinach-2017</li> <li>Ref-12-Equipment_List 2017</li> <li>Ref-13-Decision-Tree-OOS</li> <li>Additional documents submitted (18 October 2018)</li> <li>Copy of ISO 9001:2015 certificate</li> <li>EIR_FDA inspection report_cover_letter_20180312.pdf</li> <li>18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf</li> <li>Additional documents submitted (18 March 2019)</li> <li>Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf</li> </ul> Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Dates of inspection:  24 - 25 April 2018  Type of inspection:  Basic inspection						
<ul> <li>Ref-7- Site Master File</li> <li>Ref-8- GLP-Certificate-2017</li> <li>Ref-9-List of general SOPs</li> <li>Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017</li> <li>Ref-11-Site-Plans-Reinach-2017</li> <li>Ref-12-Equipment_List 2017</li> <li>Ref-13-Decision-Tree-OOS</li> <li>Additional documents submitted (18 October 2018)</li> <li>Copy of ISO 9001:2015 certificate</li> <li>EIR_FDA inspection report_cover_letter_20180312.pdf</li> <li>18-2280_GMP-Certificate 20181114-Intertek(Schweiz)AG.pdf</li> <li>Additional documents submitted (18 March 2019)</li> <li>Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf</li> </ul> Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  Dates of inspection:  24 - 25 April 2018  Type of inspection:  Basic inspection						
Ref-8- GLP-Certificate-2017     Ref-9-List of general SOPs     Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017     Ref-11-Site-Plans-Reinach-2017     Ref-12-Equipment_List 2017     Ref-13-Decision-Tree-OOS     Additional documents submitted (18 October 2018)     Copy of ISO 9001:2015 certificate     EIR_FDA inspection report_cover_letter_20180312.pdf     18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf     Additional documents submitted (18 March 2019)     Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Regionales Heilmittel- Type of inspection:  Basic inspection						
Ref-9-List of general SOPs     Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017     Ref-11-Site-Plans-Reinach-2017     Ref-12-Equipment_List 2017     Ref-13-Decision-Tree-OOS Additional documents submitted (18 October 2018)     Copy of ISO 9001:2015 certificate     EIR_FDA inspection report_cover_letter_20180312.pdf     18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019)     Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Regionales Heilmittel-  Type of inspection:  Basic inspection		<ul> <li>Ref-8- GLP-Certificate-2017</li> <li>Ref-9-List of general SOPs</li> </ul>				
<ul> <li>Ref-10-Organisation chart-Intertek (Schweiz)AG-Jun 2017</li> <li>Ref-11-Site-Plans-Reinach-2017</li> <li>Ref-12-Equipment_List 2017</li> <li>Ref-13-Decision-Tree-OOS</li> <li>Additional documents submitted (18 October 2018)</li> <li>Copy of ISO 9001:2015 certificate</li> <li>EIR_FDA inspection report_cover_letter_20180312.pdf</li> <li>18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf</li> <li>Additional documents submitted (18 March 2019)</li> <li>Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf</li> </ul> Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Regionales Heilmittel-  Dates of inspection:  Basic inspection  Basic inspection						
<ul> <li>Ref-11-Site-Plans-Reinach-2017</li> <li>Ref-12-Equipment_List 2017</li> <li>Ref-13-Decision-Tree-OOS</li> <li>Additional documents submitted (18 October 2018)</li> <li>Copy of ISO 9001:2015 certificate</li> <li>EIR_FDA inspection report_cover_letter_20180312.pdf</li> <li>18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf</li> <li>Additional documents submitted (18 March 2019)</li> <li>Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf</li> <li>Any</li> <li>None</li> <li>Summary of SRA/NRA inspection evidence considered (from most recent to last)</li> <li>Part 2</li> <li>Summary of SRA/NRA inspection evidence considered (from most recent to last)</li> <li>Type of inspection:</li> <li>Basic inspection</li> </ul>						
Ref-12-Equipment_List 2017     Ref-13-Decision-Tree-OOS     Additional documents submitted (18 October 2018)     Copy of ISO 9001:2015 certificate     EIR_FDA inspection report_cover_letter_20180312.pdf     18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf     Additional documents submitted (18 March 2019)     Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Regionales Heilmittel-  Type of inspection:  Basic inspection				2017		
<ul> <li>Ref-13-Decision-Tree-OOS         Additional documents submitted (18 October 2018)         Copy of ISO 9001:2015 certificate         EIR_FDA inspection report_cover_letter_20180312.pdf         18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf         Additional documents submitted (18 March 2019)         Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf     </li> <li>Any documents missing?</li> </ul> Part 2 Summary of SRA/NRA inspection evidence considered (from most recent to last) RHI Regionales Heilmittel- Type of inspection: Basic inspection						
Additional documents submitted (18 October 2018)  Copy of ISO 9001:2015 certificate  EIR_FDA inspection report_cover_letter_20180312.pdf  18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf  Additional documents submitted (18 March 2019)  Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI  Regionales Heilmittel-  Type of inspection:  Basic inspection		<ul> <li>Ref-13-Decision-Tree-OOS</li> <li>Additional documents submitted (18 October 2018)</li> <li>Copy of ISO 9001:2015 certificate</li> <li>EIR_FDA inspection report_cover_letter_20180312.pdf</li> <li>18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf</li> <li>Additional documents submitted (18 March 2019)</li> </ul>				
Copy of ISO 9001:2015 certificate     EIR_FDA inspection report_cover_letter_20180312.pdf     18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf Additional documents submitted (18 March 2019)     Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Regionales Heilmittel-  Type of inspection:  Basic inspection						
EIR_FDA inspection report_cover_letter_20180312.pdf         18-2280_GMP-Certificate_20181114-Intertek(Schweiz)AG.pdf         Additional documents submitted (18 March 2019)         Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Regionales Heilmittel-  Type of inspection:  24 - 25 April 2018  Type of inspection:  Basic inspection						
<ul> <li>■ 18-2280_GMP-Certificate 20181114-Intertek(Schweiz)AG.pdf         Additional documents submitted (18 March 2019)</li></ul>						
Additional documents submitted (18 March 2019)  • Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Regionales Heilmittel-  Type of inspection:  Basic inspection						
Inspektionsbericht_RHI_2425.04.2018_GMP-Basis.pdf  Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI  Regionales Heilmittel-  Type of inspection:  Basic inspection						
Any documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI  Regionales Heilmittel-  Type of inspection:  Basic inspection						
documents missing?  Part 2  Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI  Regionales Heilmittel-  Type of inspection:  Basic inspection		• inspektionsberich	i_КПI_2423.04.2018_C	JWP-Dasis.pui		
Part 2 Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Dates of inspection: 24 – 25 April 2018  Type of inspection: Basic inspection	Any	None				
Part 2 Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Dates of inspection: 24 – 25 April 2018  Type of inspection: Basic inspection	documents					
Part 2 Summary of SRA/NRA inspection evidence considered (from most recent to last)  RHI Dates of inspection: 24 – 25 April 2018  Type of inspection: Basic inspection	missing?					
RHI Dates of inspection: 24 – 25 April 2018  Regionales Heilmittel- Basic inspection	Part 2	Summary of SRA/NRA	inspection evidence cons	sidered (from most recent to		
Regionales Heilmittel-  Type of inspection:  Basic inspection		last)	•	,		
Heilmittel-	RHI Basian slas		24 – 25 April 20	018		
inguistic variable and the second of the sec	Heilmittel-	71 1	*			
Inspektorat Tests covered: Not available in report	inspektorat der	Tests covered:	Not available in	report		

Intertek (Schweiz) AG, Reinach, Switzerland-Desk Assessment - QCL

10 May 2019



20, AVENUE APPIA - CH-1211 Geneva 27 - Switzerland - Tel central + 41 22 791 2111 - Fax central + 41 22 791 3111 - Jwww.who.int

Nordwestschweiz, Switzerland.		NIRAL +41 22 /91 2111 - FAX CENIRAL +41 22 /91 3111 - WWW.WHO.INI		
FDA, USA	Dates of inspection:	7-9 November 2016		
,	Type of inspection:	Re-inspection		
	Tests covered:	Not available in report		
RHI	Dates of inspection:	12 – 13 January 2016		
Regionales	Type of inspection:	Basic inspection		
Heilmittel-	Tests covered:	Not available in report		
inspektorat der		•		
Nordwestschweiz, Switzerland.				
Part 3	Summary of the last WHO	inspection		
Date and	WHO have not previously performed an on-site inspection of this facility. A			
conclusion of	desk review was performed o	of the Intertek (Schweiz) AG, Zweigniederlassung		
most recent	Basel (Intertek Expert Services) site located at Bio Park Rosental			
WHO	Mattenstrasse 22, CH-4058,	Basel on 2 October 2014. This site was found		
inspection	compliant.			
Brief summary	Intertek (Schweiz) AG (Reins	ach site) has two main functions		
of	analytical laboratory			
activities	<ul> <li>material technology laboratory.</li> </ul>			
	<ul> <li>customers from the pharmaceutical industry:</li> <li>Quality control analysis of drug substances and drug products</li> <li>Analytical method development for pharmaceuticals (assay methods, impurity methods)</li> <li>Analytical method validation for pharmaceuticals</li> <li>Identification of impurities</li> <li>Extractables and leachables investigations for container closure systems and process contact material</li> <li>Analytical support in process validations</li> <li>Analytical support in change procedures</li> <li>Analytical support in failure investigations (e.g. for "new" impurities or particle analysis)</li> <li>Occupational hygiene and cleaning validation</li> <li>Forensic investigations</li> <li>Analysis of counterfeit drug products</li> </ul>			
General information about the QCL	Intertek (Schweiz) AG is part of the multinational company Intertek Group, with the corporate headquarters in London, UK. The Reinach site has two main functions as an analytical laboratory and as a material technology laboratory. The analytical laboratory is a contract laboratory involved in pharmaceutical analysis and in this context the laboratory is GMP qualified by the national authorities of Switzerland. Intertek is only involved in the field of chemical and physical qualitative and quantitative analysis.			



20, AVENUE APPIA - CH-1211 Geneva 27 - Switzerland - Tel central + 41 22 791 2111 - Fax central + 41 22 791 3111 - www.who.int

WHO Prequalified tests covered	Type of Analysis	Finished Products	Active pharmaceutical ingredients
by the last WHO	Physical/Chemical analysis	Not stated	Not stated
inspection	<b>Identification tests</b>	Not stated	Not stated
	Assay, impurities and related substances	Not stated	Not stated
	Microbiological analysis	No capacity for microbial testing (as mentioned under LIF)	No capacity for microbial testing (as mentioned under LIF)
	Stability testing	Performed on customer request	Performed on customer request
Additional tests covered by this desk assessment:	Refer to Desk assessmen	t detail table.	
Abbreviations	Meaning		
API	Active pharmaceutical ingredient		
CAPA	Corrective and preventive action		
FPP	Finished pharmaceutical product		
FTIR	Fourier transform infrared spectrophotometer		
GC	Gas chromatograph or gas chromatography		
GLP	Good laboratory practices		
GPPQCL	Good practices for pharmaceutical quality control laboratories		
HPLC	High performance liquid chromatograph		
QA	Quality assurance		
QCL	Quality control laboratory		
SOP	Standard operating procedure		

ional supporting documentation
ionai Subboi une uocumentation
1

## a) Authorization granted by the local authority (if any) or ISO 17025 certificate:

The following authorizations have been granted:

- ISO 9001:2008 certificate issued by IQMET The International Certification Network (Certificate number CH-31087 issued 2015-11-16)
- ISO 9001:2008 certificate issued by SQS (Certificate number 31087 scope number 35 issued November 16, 2015)
- ISO 9001:2015 certificate issued by SQS (Certificate number 31087 scope number 35 issued September 15, 2018)



## b) Laboratory information file (LIF):

The Laboratory Information file (LIF) was provided (LIF L1407-02 WHO-ed3-2017). The LIF was arranged in accordance with the WHO guidelines. A summary of processes was available within this document and found to adequately address WHO requirements.

### c) List of all regulatory inspections performed in the last 3 years and their outcomes:

- Inspection report provided from 24-25 April 2018 for RHI- Regionales Heilmittelinespektorat der Nordwestschweiz
- Inspection report provided from 12-13 January 2016 for RHI- Regionales Heilmittelinespektorat der Nordwestschweiz
- Inspection conducted by FDA, USA 7-9 November 2016
- Statement of GLP Compliance issues by Swissmedic was provided.

### d) Qualification, validation and calibration status of equipment:

The facility had in place a documented procedure for the qualification, validation and calibration of equipment. An equipment list was provided with each item of equipment assigned a unique identifier. The provided list did not list the qualification period for the equipment.

# e) Confirmation by the quality manager that a full self-inspection dedicated to the tests submitted for prequalification has been performed and all matters dealt with:

The facility had a documented procedure of internal audits (SOP.GENE.027) that included self-inspection against GLP and ISO 9001 requirements.

#### f) Additional documents submitted:

Nil

### Part 5 Conclusion – Desk assessment outcome

Based on the previous WHO desk assessment report and on the GPPQCL evidence received and reviewed, it is considered that a desk assessment is acceptable in lieu of a WHO onsite inspection. The site *Intertek (Schweiz) AG* located at *TechCenter Reinach, Kügenstrasse 18, 4153, Reinach BL, Switzerland* is considered to be operating at an acceptable level of compliance with WHO GPPQCL guidelines.

This WHOPIR will remain valid for 3 years, provided that the outcome of any inspection conducted during this period is positive.



### Part 6

### List of guidelines referenced in this inspection report

1. WHO Good Practices for Pharmaceutical Quality Control Laboratories. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fourth Report. Geneva, World Health Organization, 2010 (WHO Technical Report Series, No. 957), Annex 1.

Short name: WHO GPPQCL Guidelines or TRS No. 957, Annex 1 <a href="http://www.who.int/medicines/publications/44threport/en/">http://www.who.int/medicines/publications/44threport/en/</a>

- 2. WHO guidance on good practices for desk assessment of compliance with good manufacturing practices, good laboratory practices and good clinical practices for medical products regulatory decisions. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fifty-Second Report. Geneva, World Health Organization, 2018 (WHO Technical Report Series, No. 1010), Annex 9. Short name: WHO TRS 1010, Annex 9 <a href="https://www.who.int/medicines/areas/quality\_safety/quality\_assurance/TRS1010annex9.pdf?ua=1">https://www.who.int/medicines/areas/quality\_safety/quality\_assurance/TRS1010annex9.pdf?ua=1</a>
- 3. WHO good manufacturing practices for pharmaceutical products: main principles. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Eighth Report. Geneva, World Health Organization, 2014 (WHO Technical Report Series, No. 986), Annex 2. Short name: WHO GMP Guidelines or TRS No. 986, Annex 2

  <a href="http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_986/en/">http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_986/en/</a>
- 4. WHO Good Manufacturing Practices: water for pharmaceutical use. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fourth-Sixth Report. Geneva, World Health Organization, 2012 (WHO Technical Report Series, No. 970), Annex 2. Short name: WHO TRS No. 970, Annex 2
  <a href="http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_970/en/">http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_970/en/</a>
- 5. WHO guidelines for sampling of pharmaceutical products and related materials. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Thirty-Ninth Report. Geneva, World Health Organization, 2005 (WHO Technical Report Series, No. 929), Annex 4. *Short name: WHO TRS No. 929, Annex 4*

http://whqlibdoc.who.int/trs/WHO\_TRS\_929\_eng.pdf?ua=1

- 6. Guidelines on heating, ventilation and air-conditioning systems for non-sterile pharmaceutical products. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fifty-Second Report Geneva, World Health Organization, 2018 (WHO Technical Report Series, No. 1010), Annex 8. Short name: WHO TRS No. 1010, Annex 8

  <a href="http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_1010/en/">http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_1010/en/</a>
- 7. Supplementary guidelines on good manufacturing practices: validation. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fortieth Report. Geneva, World Health Organization, 2006 (WHO Technical Report Series, No. 937), Annex 4.

Short name: WHO TRS No. 937, Annex 4

http://whqlibdoc.who.int/trs/WHO TRS 937 eng.pdf?ua=1

10 May 2019



8. WHO good manufacturing practices for active pharmaceutical ingredients. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fourth Report. Geneva, World Health Organization, 2010 (WHO Technical Report Series, No. 957), Annex 2. Short name: WHO TRS No. 957, Annex 2

http://www.who.int/medicines/publications/44threport/en/

9. WHO Good Practices for Pharmaceutical Products Containing Hazardous Substances. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fourth Report. Geneva, World Health Organization, 2010 (WHO Technical Report Series, No. 957), Annex 2. Short name: WHO TRS No. 957, Annex 2

http://www.who.int/medicines/publications/44threport/en/

10.WHO good manufacturing practices for sterile pharmaceutical products. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex 6.

Short name: WHO TRS No. 961, Annex 6

http://whqlibdoc.who.int/trs/WHO TRS 961 eng.pdf?ua=1

11. WHO guidelines on transfer of technology in pharmaceutical manufacturing WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex 7.

Short name: WHO TRS No. 961, Annex 7

http://whqlibdoc.who.int/trs/WHO TRS 961 eng.pdf?ua=1

12. Model guidance for the storage and transport of time-and temperature-sensitive pharmaceutical products. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex

Short name: WHO TRS No. 961, Annex 9

http://whqlibdoc.who.int/trs/WHO TRS 961 eng.pdf?ua=1

13. General guidelines for the establishment maintenance and distribution of chemical reference substances. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-First Report Geneva, World Health Organization 2007 (WHO Technical Report Series, No.943) Annex 3. Short name: WHO TRS No. 943, Annex 3

http://whqlibdoc.who.int/trs/WHO TRS 943 eng.pdf?ua=1

14. WHO good practices for pharmaceutical microbiology laboratories. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex 2.

Short name: WHO TRS No. 961, Annex 2

http://whqlibdoc.who.int/trs/WHO TRS 961 eng.pdf?ua=1



 $20, \mathtt{AVENUE}\ \mathtt{APPIA} - \mathtt{CH-1211}\ \mathtt{GENEVA}\ 27 - \mathtt{SWITZERLAND} - \mathtt{TEL}\ \mathtt{CENTRAL}\ + 41\ 22\ 791\ 2111 - \mathtt{FAX}\ \mathtt{CENTRAL}\ + 41\ 22\ 791\ 3111 - \mathtt{WWW.WHO.INT}$ 

15. WHO guidelines on quality risk management. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Seventh Report Geneva, World Health Organization, 2013 (WHO Technical Report Series, No. 981), Annex 2.

Short name: WHO TRS No. 981, Annex 2

http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_981/en

- 16. WHO guidelines on variation to a prequalified product. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Seventh Report Geneva, World Health Organization, 2013 (WHO Technical Report Series, No. 981), Annex 3. *Short name: WHO TRS No. 981, Annex 3*<a href="http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_981/en/">http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/trs\_981/en/</a>
- 17. WHO guidelines for drafting a site master file. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Fifth Report Geneva, World Health Organization, 2011 (WHO Technical Report Series, No. 961), Annex 14. *Short name: WHO TRS No. 961, Annex 14* <a href="http://whqlibdoc.who.int/trs/WHO\_TRS\_961\_eng.pdf?ua=1">http://whqlibdoc.who.int/trs/WHO\_TRS\_961\_eng.pdf?ua=1</a>
- 18. WHO Guidelines on good manufacturing practices: validation, Appendix 7: non-sterile process validation. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Ninth Report Geneva, World Health Organization, 2015 (WHO Technical Report Series, No. 992), Annex 3. *Short name: WHO TRS No. 992, Annex 3*<a href="http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/WHO\_TRS\_992\_web.pdf">http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/WHO\_TRS\_992\_web.pdf</a>
- 19. WHO General guidance on hold-time studies WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Ninth Report Geneva, World Health Organization, 2015 (WHO Technical Report Series, No. 992), Annex 4. Short name: WHO TRS No. 992, Annex 4 <a href="http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/WHO\_TRS">http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/WHO\_TRS</a> 992 web.pdf
- 20. WHO Technical supplements to Model Guidance for storage and transport of time and temperature sensitive pharmaceutical products. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Ninth Report Geneva, World Health Organization, 2015 (WHO Technical Report Series, No. 992), Annex 5. Short name: WHO TRS No. 992, Annex 5 <a href="http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/WHO\_TRS\_992\_web.pdf">http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/WHO\_TRS\_992\_web.pdf</a>
- 21. Guidance on good data and record management practices. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fiftieth Report Geneva, World Health Organization, 2016 (WHO Technical Report Series, No. 996), Annex 5. *Short name: WHO TRS No. 996, Annex 5*

http://www.who.int/medicines/publications/pharmprep/WHO TRS 996 annex05.pdf



22. WHO general guidance on variations to multisource pharmaceutical products. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fiftieth Report Geneva, World Health Organization, 2016 (WHO Technical Report Series, No. 996), Annex 10.

Short name: WHO TRS No. 996, Annex 10

http://www.who.int/medicines/publications/pharmprep/WHO TRS 996 annex10.pdf

23. WHO Recommendations for quality requirements when plant – derived artemisin is used as a starting material in the prosecution of antimalarial active pharmaceutical ingredients. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Forty-Ninth Report Geneva, World Health Organization, 2015 (WHO Technical Report Series, No. 992), Annex 6.

Short name: WHO TRS No. 992, Annex 6

http://www.who.int/medicines/areas/quality\_safety/quality\_assurance/expert\_committee/WHO\_TR S 992 web.pdf

24. Stability testing of active pharmaceutical ingredients and finished pharmaceutical products. WHO Expert Committee on Specifications for Pharmaceutical Preparations. Fifty-Second Report Geneva, World Health Organization, 2018 (WHO Technical Report Series, No. 1010), Annex 10.

Short name: WHO TRS No. 1010, Annex 10

http://www.who.int/medicines/publications/pharmprep/WHO TRS 996 annex10.pdf