Valid from: HSA/LC 18-04-2018 Replaces: HSA/LC 24-02-2017

Batch Release Certificate

Product name: Dextran 70 USP

Specification No.: 40019

Batch No.: XXXXXX Manufacturing date: mmmm_yyyy Retest date (5 years): mmmm_yyyy

Manufacturing sites: Pharmacosmos A/S, Roervangsvej 30, DK-4300 Holbaek, Denmark

DKMA* No.: 254629

GMP certificate No.: DK API-H 00083617, DK API-V 00083617

FDA establishment No.: FEI 3002807874
FDA facility classification: Acceptable

EDQM* certificate No.: Certificates for Dextran 1, 40, 60 & 70 Ph.Eur. available

Method:	Parameter:	Results of analysis:		Limits:
USP	Infrared Absorption:	Complies	**	Complies
USP	Color of solution (Absorbance at 375 nm, 6% sol., 4 cm):	x.xx		≤0.15
USP	pH (6% solution):	x.x		4.5 – 7.0
USP	Specific rotation (+/-) °:	+x		+195 – +203
USP	Average molecular mass, Mw:	x,xxx		63,000 - 77,000
USP	Mw of 10% high fraction:	x,xxx		≤195,000
USP	Mw of 10% low fraction:	x,xxx		≥13,000
USP	Mw/Mn:	x.x		1.4 – 1.9
USP	Mn:	x,xxx		34,000 - 48,000
USP	Viscosity, intrinsic, ml/g:	x		24 – 29
USP	Nitrogen containing impurities, ppm N:	x		≤100
USP	Alcohol and related impurities:	Complies	**	Complies
USP	Sulfate, % w/w:	Complies		≤0.03
USP	Loss on drying (105°C, 5h), % w/w:	x.x		≤7.0
USP	Bacterial endotoxins (6% sol.) EU/ml:	<x.x< td=""><td></td><td>≤0.5</td></x.x<>		≤0.5
USP	Antigenic impurities:	Complies	**	Complies
USP	Safety:	Complies		Complies

References to official monographs are to be considered as current editions.

We hereby confirm that no class 1, class 2 and class 3 solvent, cf. USP <467> Residual solvents, is used in the manufacturing of this product.

We hereby confirm that no metal catalysts or metal reagents are used in the manufacturing of this product. Elemental impurities, cf. ICH Q3D are unlikely to be present.

CERTIFICATE OF CONFORMITY

I hereby certify that the above information is authentic and accurate. This batch of Active Pharmaceutical Ingredient has been manufactured, including packaging and quality control at the above mentioned site in full compliance with the GMP requirements for active starting materials and with the above mentioned specifications. The batch processing, packaging and analysis records were reviewed and found to be in compliance with GMP.

Date (dd.mm.yyyy):	
	Qualified Person, Heidi Skindt Andersen, M.Sc. Pharm

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^{*)} EDQM refers to 'European Directorate for the Quality of Medicines and Healthcare'. DKMA refers to 'Danish Medicines Agency'

^{**)} Test is not carried out routinely.