

PHARMACOSMOS A/S

Batch Release Certificate

Product name: Dextran 40 EP

Specification No.: 40012

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.: R1-CEP 1999-063-Rev 02

Method:	Parameter:	Results of analysis:	Limits:
EP	Appearance of powder:	Complies	White or almost white powder
EP	Solubility:	Complies	Very soluble in water, very slightly soluble in ethanol (96%)
EP	Specific rotation, (+/-) °:	+x	+195 – +201
EP	Infrared Absorption:	Complies	** Complies
EP	Appearance of solution:	Complies	Clear and colorless
EP	Acidity or Alkalinity:	Complies	Complies
EP	Average molecular mass, Mw:	x,xxx	35,000 – 45,000
EP	Mw of 10% high fraction:	x,xxx	≤110,000
EP	Mw of 10% low fraction:	x,xxx	≥7,000
EP	Nitrogen containing substances, ppm N:	x	≤110
EP	Residual solvent % by GC:	Complies	*** Methanol ≤0.05 Ethanol & other solvents ≤0.5
EP	Heavy metals, ppm lead:	x	<10
EP	Loss on drying (105°C, 5h), % w/w:	x.x	≤7.0
EP	Sulphated ash, % w/w:	x.x	≤0.3
EP	Bacterial endotoxins, IU/g:	Complies	<10
EP	Microbial contamination, cfu/g:	Complies	≤100

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

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

**) Test is not carried out routinely. The identification of the product is assured through strict adherence to established GMP rules throughout the manufacturing procedure.

***) Test is not carried out according to approval from EDQM. No class 1, class 2 and class 3 solvent, cf. EP 5.4. Residual solvent, is used in the manufacturing of this product.

We hereby confirm that no metal catalysts or metal reagents, cf. EMEA/CHMP/4446/2000 and Ph. Eur. 5.20 are used in the manufacturing of this product.

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 Skjødt Andersen, M.Sc. Pharm