



YANGZHOU LIBERTY PHARMACEUTICAL CO., LTD

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CERTIFICATE OF ANALYSIS

WE, YANGZHOU LIBERTY PHARMACEUTICAL CO., LTD. AS A MANUFACTURER OF OXYTETRACYCLINE HYDROCHLORIDE CERTIFY THAT THIS BATCH HAS BEEN MANUFACTURED BY US IN FULL COMPLIANCE WITH EU-GMP REQUIREMENTS AND GMP REQUIREMENTS OF THE LOCAL REGULATORY AUTHORITY.

REPORT NO.: 50041403055

SOPQC-FP002-01

SAMPLE NAME	OXYTETRACYCLINE HYDROCHLORIDE		
BATCH NO.	YT140302055	SENDING SAMPLE UNIT	WORKSHOP THREE
SPECIFICATION	PHARMACEUTICAL	MANUFACTURING DATE	2014.03.15
BATCH SIZE	1061.7kg	REPORT DATE	2014.03.21
COS NO.	R0-CEP 2010-080-Rev 01	EXPIRY DATE	2018.03.14

I. ANALYTICAL METHOD:

EP7.0/BP2011

II. RESULTS OF ANALYTICAL ITEM:

ITEM	SPECIFICATION	RESULT
APPEARANCE:	YELLOW, CRYSTALLINE POWDER,	
	HYGROSCOPIC	COMPLIES
SOLUBILITY:	FREELY SOLUBLE IN WATER, SPARINGLY SOLUBLE IN ETHANOL(96%). SOLUTIONS IN WATER BECOME TURBID ON STANDING, OWING TO THE PRECIPITATION OF OXYTETRACYCLINE.	COMPLIES
IDENTIFICATION:	A: THIN-LAYER CHROMATOGRAPHY	COMPLIES
	B: REACTION WITH SULPHURIC ACID	COMPLIES
	C: REACTION OF CHLORIDES	COMPLIES
PH:	2.3 TO 2.9	2.4
SPECIFIC OPTICAL ROTATION:	-188° TO -200°	-196°
SPECIFIC ABSORBANCE (353nm)	270 TO 290	280
LIGHT-ABSORBING IMPURITIES		
(430nm):	NOT MORE THAN 0.50	0.20
(490nm):	NOT MORE THAN 0.20	0.03
RELATED SUBSTANCES:		
IMPURITY A	NOT MORE THAN 0.5%	0.19%
IMPURITY B	NOT MORE THAN 2.0%	0.73%
IMPURITY C	NOT MORE THAN 2.0%	1.47%
ANY OTHER IMPURITY	NOT MORE THAN 0.1%	0.06%
TOTAL OF IMPURITIES D, E AND F (ELUTING BETWEEN THE LATTER TWO)	NOT MORE THAN 2.0%	0.57%
HEAVY METALS:	NOT MORE THAN 50 ppm	COMPLIES
WATER:	NOT MORE THAN 2.0%	0.7%
SULFATED ASH:	NOT MORE THAN 0.5%	0.1%
RESIDUAL SOLVENT:		
METHANOL:	NOT MORE THAN 3000 ppm	134ppm
ASSAY (ANHYDROUS SUBSTANCE):	95.0% TO 102.0%	96.6%
CONTENT OF $C_{22}H_{25}ClN_2O_9$		

III. RESULT AND CONCLUSION: PASS

APPROVED BY: 李江 2014.03.21 TESTED BY: 李江 2014.03.21 CHECKED BY: 李江 2014.03.21