

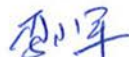
R&A Handels und Import GmbH
 Kohlenstraße 2
 50825 Köln
 Deutschland

Servicetelefon: 0177 / 3650307
 E-Mail: kontakt@koffeindirekt.de
 Web: www.koffeindirekt.de

Product: Caffeine (Anhydrous) Batch No.: 1031909716 Trace: 04 Quantity: 2000 kg
 Analysis Standard: BP2018, EP9.0, USP41, FCC11 Analysis Date: 2019.09.09 Report Date: 2019.09.12
 Manu. Date: 2019.09 Retest Date: 2023.08

Analysis Contents	Analysis Standards	Analysis Results
【Characters】		
Appearance	White crystalline powder or silky, white crystals	White crystalline powder
【Identification】(USP/FCC)		
A、Infrared Absorption	Conforms to the USP Caffeine RS	Pass
B、The retention time of caffeine peak	Corresponds to the Standard preparation obtained in the Assay	Pass
【Tests】		
Appearance of solution (BP/EP)	Clear 、colourless	Pass
Sulphates (BP/EP)	≤500ppm	<500ppm
Related substances (BP/EP)		
-Each impurity A、B、C、D、E、F	≤0.10%	<0.10%
-Unspecified impurities	≤0.10%	<0.10%
-Total impurities	≤0.10%	<0.10%
Acidity (BP/EP)	Not more than 0.2ml of 0.01M sodium hydroxide	<0.2ml
Organic impurities (USP)		
-Individual impurities	≤0.1%	<0.1%
-Total impurities	≤0.1%	<0.1%
Lead (FCC)	≤1mg/kg	<1mg/kg
Other Alkaloids (FCC)	No precipitate is formed	Pass
Melting Range (FCC)	235~237.5 °C	236.0~236.9°C
Readily Carbonizable Substances (FCC)	Passes Test	Pass
Loss on drying (BP/EP)	≤0.5%	0.06%
Residue on ignition (BP/EP)	≤0.1%	0.04%
【Assay】(USP)	98.5%~101.0%	100.0%

Conclusion: The above product conforms to BP2018, EP9.0, USP41, FCC11 requirement on Caffeine

Chief of Quality Analysis Dept:  Rechecker:  Reporter: 
 Address: No. 36 Fuqiang Western Road, Luancheng County, Shi Jiazhuang City, Hebei Province, China
 Tel: +86 311 85408618 +86 311 85408725 Fax: +86 311 85409463