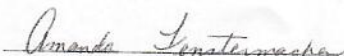


CERTIFICATE OF ANALYSIS
ACETONITRILE
LC Mass Spec Grade

Lot # K21C26CAS0000ACN
 Date of Manufacture: March 25, 2021
 Recommended Retest Date: Two Years from Date of Manufacture
 Main Catalog #: ZH30000LCMS

TEST	SPECIFICATIONS	RESULTS
Assay (by GC-FID)	Min 99.9 %	99.97 %
Color	Max 5 APHA	< 5 APHA
Fluorescence at emission maximum for Impurities at 254 nm	Max 1 ppb	< 0.3 ppb
GC-ECD Responsive residue (single peak) (as Heptachlorepoide)	Max 10 ppt	< 1 ppt
GC-FID Responsive residue (single peak) (as 2-Octanol)	Max 5 ppb	< 1 ppb
LC gradient elution suitability at 210 nm	Max 5 mAU	1.5 mAU
254 nm	Max 5 mAU	< 0.5 mAU
Residue after Evaporation	Max 1 ppm	0.3 ppm
Water (by KF coulometry)	Max 0.01 %	0.0005 %
Optical Absorbance at 190 nm	Max 1.00 AU	0.72 AU
195 nm	Max 0.14 AU	0.09 AU
200 nm	Max 0.05 AU	0.02 AU
210 nm	Max 0.04 AU	0.01 AU
220 nm	Max 0.02 AU	0.01 AU

Approved



Amanda Fenstermacher
 Quality Assurance Clerk

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 06/14/2018

CERTIFICATE OF ANALYSIS
ACETONITRILE
LC Mass Spec Grade

Lot # K21C26CAS0000ACN
 Date of Manufacture: March 25, 2021
 Recommended Retest Date: Two Years from Date of Manufacture
 Main Catalog #: ZH3000LCMS

TEST	SPECIFICATIONS	RESULTS
230 nm	Max 0.01 AU	0.004 AU
254 nm	Max 0.005 AU	0.003 AU
400 nm	Max 0.005 AU	< 0.001 AU
LC-MS Positive mode (as Reserpine)	Max 50 ppb	< 50 ppb
LC-MS Negative mode (as Nitrophenol)	Max 50 ppb	< 50 ppb
Aluminum (Al)	Max 0.5 ppm	< 0.001 ppm
Barium (Ba)	Max 0.1 ppm	< 0.001 ppm
Cadmium (Cd)	Max 0.5 ppm	< 0.001 ppm
Calcium (Ca)	Max 0.1 ppm	< 0.001 ppm
Chromium (Cr)	Max 0.02 ppm	< 0.001 ppm
Cobalt (Co)	Max 0.02 ppm	< 0.001 ppm
Copper (Cu)	Max 0.01 ppm	< 0.001 ppm
Iron (Fe)	Max 0.1 ppm	< 0.001 ppm
Lead (Pb)	Max 0.02 ppm	< 0.001 ppm
Magnesium (Mg)	Max 0.1 ppm	< 0.001 ppm
Manganese (Mn)	Max 0.01 ppm	< 0.001 ppm
Nickel (Ni)	Max 0.02 ppm	< 0.001 ppm
Potassium (K)	Max 0.1 ppm	< 0.001 ppm

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**CERTIFICATE OF ANALYSIS
ACETONITRILE
LC Mass Spec Grade**

Lot # K21C26CAS0000ACN
Date of Manufacture: March 25, 2021
Recommended Retest Date: Two Years from Date of Manufacture
Main Catalog #: ZH30000LCMS

TEST	SPECIFICATIONS	RESULTS
Silver (Ag)	Max 0.1 ppm	< 0.001 ppm
Sodium (Na)	Max 0.1 ppm	< 0.001 ppm
Tin (Sn)	Max 0.1 ppm	< 0.001 ppm
Zinc (Zn)	Max 0.1 ppm	< 0.001 ppm
Comments: Metal results are at time of packaging and may increase from extraction from the container.	Passes Test Passes Test	Pass Pass

Form: Acetonitrile LCMS Rev. 1.5 10-18 PB

This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

Approved



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