



NEWMIND
47 W. Polk St. STE 100-241
Chicago, IL 60605

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CERTIFICATE OF ANALYSIS

Sunifiram

(1-benzoyl-4-propanoylpiperazine)

Material Lot #: 20160307 Manufacture Date: 03/09/2016
Country of Origin: China Retesting Date: 03/08/2018

Analysis	Claim	Result
Sunifiram	>99.0%	>99.68%

Test	Claim	Result
Appearance	Off-white white crystalline powder.	Conforms
Loss on Drying	≤ 1.0%	0.2%
Melting Point	93.0°-97.0°	
Related Substances		
Largest Single Impurity	≤ 0.1%	0.08%
Total Impurity	≤ 0.5%	0.32%

Sunifiram should be stored at or below room temperature in a tightly sealed durable container.
Sunifiram should be protected from excess heat, direct sunlight, excess humidity and moisture.
Sunifiram has a stable shelf life of 3 years from the date of testing when properly stored.




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
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Product Name	Sunifiram	Client Lot Number	5/1/17 Sample
Report Date	05/22/17	Laboratory #	8663

Test	Method	Result
Identification	II-NMR	Conforms
Assay	HPLC-UV	101.6%
Lead	ICP-MS USP <730>	1.005 ppm
Arsenic	ICP-MS USP <730>	<0.001 ppm
Cadmium	ICP-MS USP <730>	<0.001 ppm
Mercury	ICP-MS USP <730>	<0.001 ppm

Collin Thomas 
Laboratory Manager

05/22/2017 
Date

1H NMR of Sunifiram
in DMSO
Lot # 8663
Colmaric Analytical
400 MHz

Current Data Parameters
NAME May17-2017-colmaric
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20170517
Time 17.03
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 32768
SOLVENT DMSO
NS 32
DS 0
SWH 5208.333 Hz
FIDRES 0.158946 Hz
AQ 3.1457281 sec
RG 114
DW 96.000 usec
DE 25.61 usec
TE 298.0 K
D1 1.50000000 sec
TD0 1

CHANNEL f1
NUC1 1H
P1 11.38 usec
PL1 -2.50 dB
PL1W 18.35869598 W
SFO1 400.1320067 MHz

F2 - Processing parameters
SI 32768
SF 400.1300068 MHz
WDW EM

