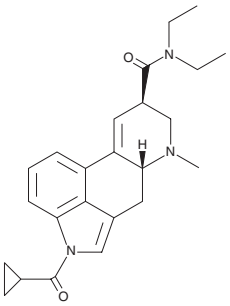
CONFIRMATION of ANALYSIS

ACCREDITED
ISO 17034 #AR-1774

1cP-LSD (solution)

Reference Material



Item No.:	30187
Batch No.:	0828050
Molecular Formula:	$C_{24}H_{29}N_3O_2$
Formula Weight:	391.50 amu
Expiry Date:	05NOV2032 (valid from date of certification)
Supplied as:	A 1 mg/ml (nominal) solution in acetonitrile
Storage:	Unopened at -20˚C ± 10˚C
Safety:	Refer to Safety Data Sheet
Intended Use:	For analytical testing purposes only, not intended for human or animal use.
Instructions for Use:	Once opened this material should be minimally exposed to ambient conditions and returned to recommended storage conditions immediately after use. Ongoing stability testing supports a negligible decrease in purity over a series of thaw-refreeze cycles. It is recommended that laboratories perform periodic testing to verify the material remains fit for the intended use. Sonicate prior to use.

Approval: Marie Glodowski

Marie Glodowski

Title: ISO Quality Assurance Manager

Confirmation Date: 05NOV2026

Cayman Chemical certifies that this standard meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiration date when stored unopened as recommended.

CONFIRMATION of ANALYSIS

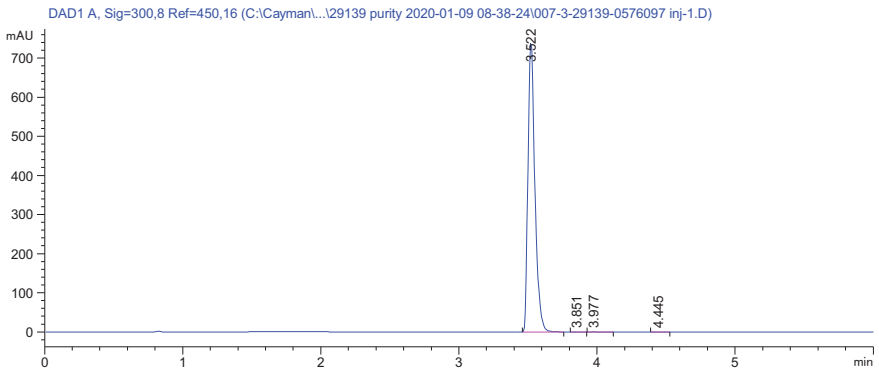
Neat Material Quality Information (Item No.: 29139, Batch No.: 0576097)

Qualifier	Method	Result
Chromatographic Purity, HPLC	Cayman Method TST SD120	99.87%
Identity, LC-MS	Cayman Method TST SD13, +ESI	392.2 amu
Identity, GC-MS	Cayman Method TST SD12	Conforms
Identity, NMR	^{1}H NMR	Conforms

NMR and optical rotation (if applicable) are provided as supplemental information but are not within scope of ISO accreditation.

Supplemental Data (Neat Material)

HPLC-UV

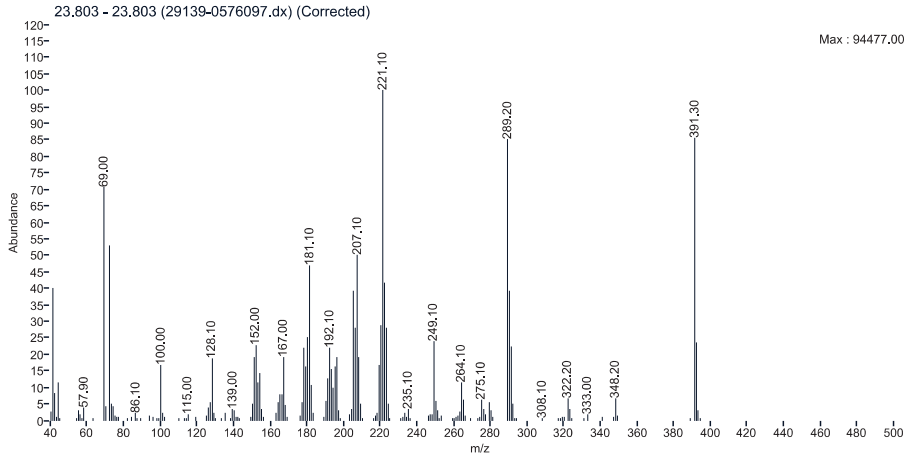


Conditions

Instrument	Agilent 1100/1200 Series
Column	4.6 x 100 mm, 2.7 µm Poroshell Phenyl Hexyl
Mobile Phase	A: 0.1% Trifluoroacetic Acid B: Acetonitrile
Gradient	*Time (min) %B* 0-3 10-60% 3-4 60-90% 4-5 90% 5.1-8 10%
Flow Rate	1.6 ml/min
Column Temp	30˚C
Wavelength	UV monitored at 300 nm

CONFIRMATION of ANALYSIS

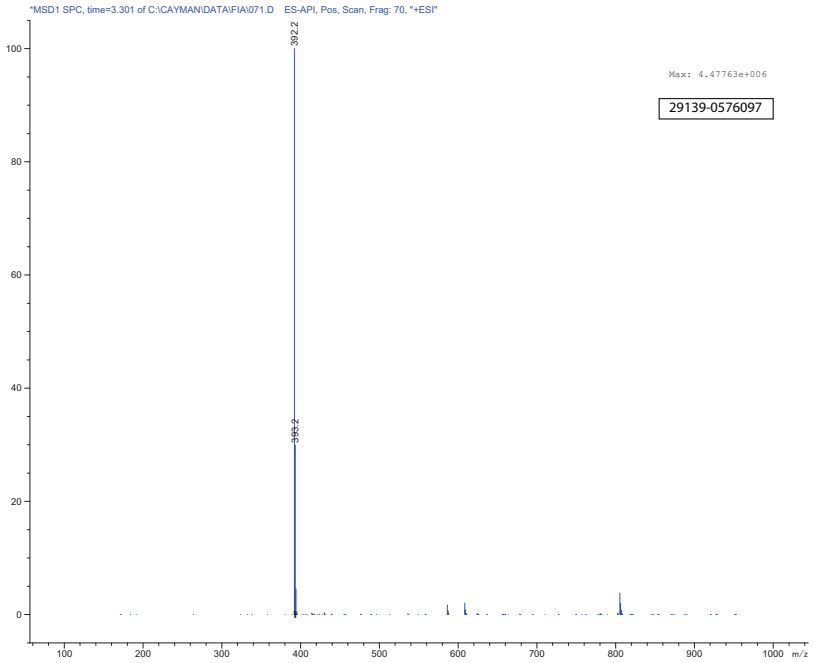
GC-MS



Conditions	
Instrument	Agilent GC MSD
Column	30 m x 0.32 mm, 0.5 µm Rtx-5MS
Carrier Gas	He
Flow Rate	2 ml/min
Inlet Temp	300˚C
Split Ratio	15:1
Oven Program	50˚C hold for 1 min, ramp to 300˚C at 30˚C per min, hold at 300˚C to 25 min
Transfer Line Temp	300˚C
Voltage	70eV EI MS
Scan Range	40-650 m/z
Tune File	atune (custom)

Apex spectrum – background (1 min window in front of peak)

ESI-MS



Conditions	
Instrument	Agilent HPLC MSD
Mobile Phase	50:50:0.1 Methanol/Water/Acetic Acid
Flow Rate	0.5 ml/min
Ionization Mode	+ESI
Mass Range	100-1,000 m/z
Nebulizer	60 psi
Desolvation Gas	13 L/min
Desolvation Temp	350˚C
Electrospray Voltage	4kV

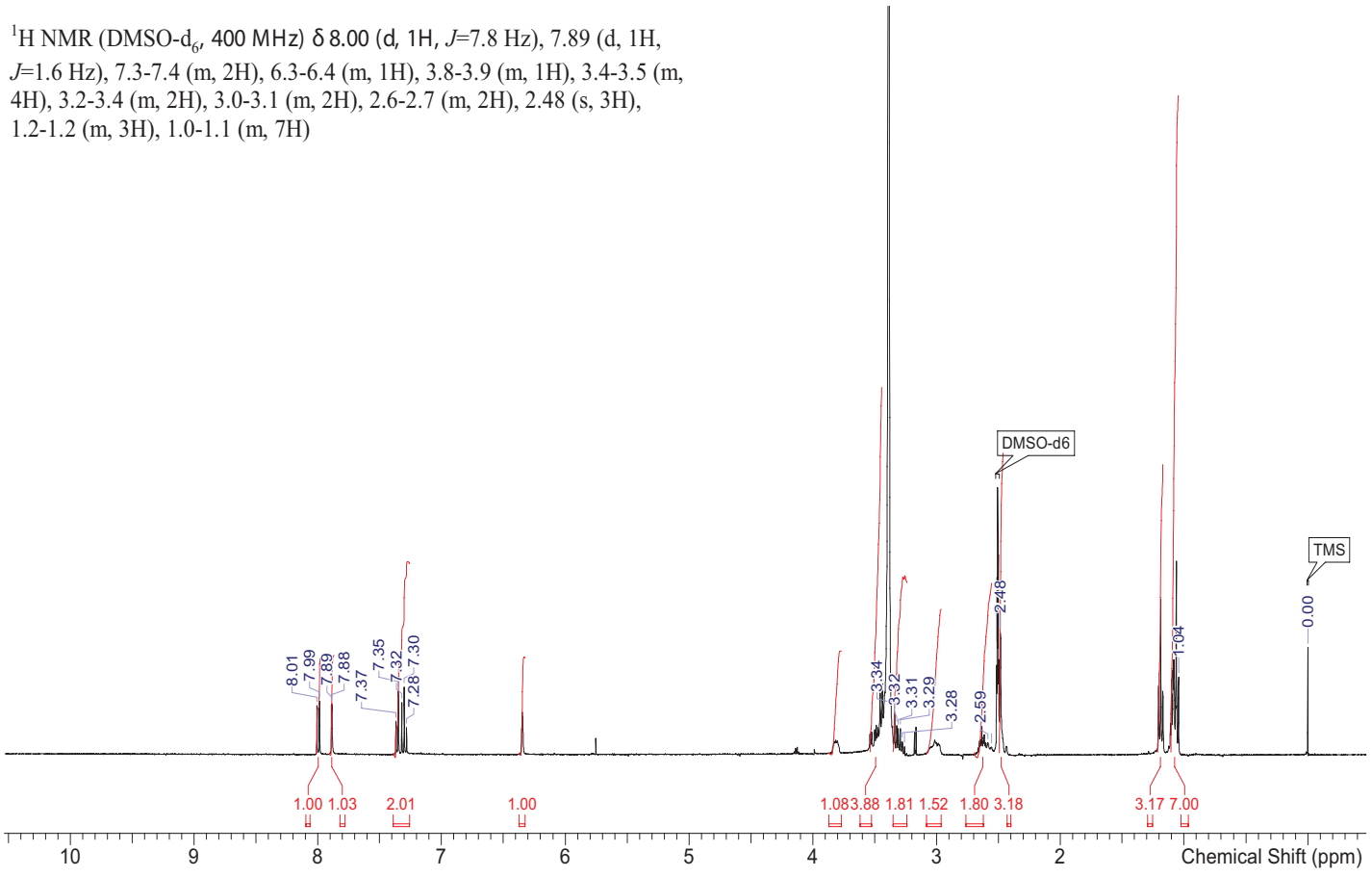
MS collected across peak width at half height

CONFIRMATION of ANALYSIS

NMR *(not within scope of ISO accreditation)*

File Name	\\sulfur\private\nmrdata_2019\KS-1747-206_20191120_\KS-1747-206_20191120_01\KS-1747-206_20191120_001.fid\fid				
Date	Nov 20 2019	***Nucleus***	1H	***Frequency (MHz)***	399.9680
Solvent	DMSO-d6	***Number of Transients***	32	***Temperature (degree C)***	25.000

^{1}H NMR (DMSO-d_6, 400 MHz) δ 8.00 (d, 1H, *J*=7.8 Hz), 7.89 (d, 1H, *J*=1.6 Hz), 7.3-7.4 (m, 2H), 6.3-6.4 (m, 1H), 3.8-3.9 (m, 1H), 3.4-3.5 (m, 4H), 3.2-3.4 (m, 2H), 3.0-3.1 (m, 2H), 2.6-2.7 (m, 2H), 2.48 (s, 3H), 1.2-1.2 (m, 3H), 1.0-1.1 (m, 7H)



Conditions	
Instrument	Varian Inova 400 MHz NMR
Scans	32 scans

Homogeneity

A minimum sample size of 1.5 µg was used to determine homogeneity. Homogeneity was determined by HPLC using ampules selected from a random sampling plan from early, middle and late fill positions. The recommended minimum quantity for use is 1.5 µg. Quantities below this have not been evaluated.

Short-Term Stability

Degradation was observed at 4˚C and room temperature after 2 weeks. This data supports shipping of this product on dry ice.

Long-Term Stability

Long-term stability data confirmed six years stability at the -20˚C storage temperature.

CONFIRMATION of ANALYSIS

Quality Standard Documentation

The manufacturer of this Reference Material is accredited under ISO 17034:2016 accreditation issued by ANAB. Refer to ANAB certificate and scope of accreditation AR-1774.

The manufacturer of this Reference Material is accredited under ISO/IEC 17025:2017 accreditation issued by ANAB. Refer to the ANAB certificate and scope of accreditation AT-1773.

Revision History

Revision No.	Date	Reason for Revision
01	05NOV2026	Initial version

Disclaimers

Material Safety Data

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some but not all of the information required for the safe and proper use of this material. Before use, review the complete Safety Data Sheet, which has been sent *via* email to your institution.

Warranty and Limitation of Remedy

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specification.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver of Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitations of Remedy located on our website and in our catalog.

This Certificate shall not be reproduced except in full, without written approval from the Cayman Chemical ISO Quality Manager.

ISO CRT SD04 v 2.2

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