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CERTIFICATE OF ANALYSIS

Product Name	1,3-Dibromopropane, Analytical standard		
Synonyms	Trimethylene Bromide		
CAS No	109-64-8		
Product code	SYI0051	**Batch No**	LDIBF0216
Molecular Formula	$C_3H_6Br_2$	**Molecular Weight**	201.89
Mfg. Date	Feb-26	**Expiry Date**	Jan-29
Storage Conditions	Store at room temperature, tightly closed container		

Test	Specification	Results
Description	Clear colorless to light yellow liquid	Clear light yellow liquid
Boiling Point	167 °C	167 °C
Specific Gravity at 20°C	1.98 g/ml	1.98 g/ml
Purity by GC	≥98.00%	99.34%
IR Spectrum	Identification by structure	Confirmed
1H NMR Spectra	Identification by structure	Confirmed
Mass Spectra	Identification by molecular weight	Confirmed

Reference to *USP* 30–*NF* 25 General Chapter <11>, "Reference Standards," As a result, noncompendial (secondary) reference standards require characterization data. This product should not use for clinical application.

Approved by
Dr. Gopinath PH. D

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Computer Generated document, Does not require any Signature.

Synthicure Laboratories LLP, 5-5-35/276A/NR, Sakthipuram Industrial Road, Prashanth Nagar, IDA Kukatpally, Hyderabad-500072 Telangana, India.

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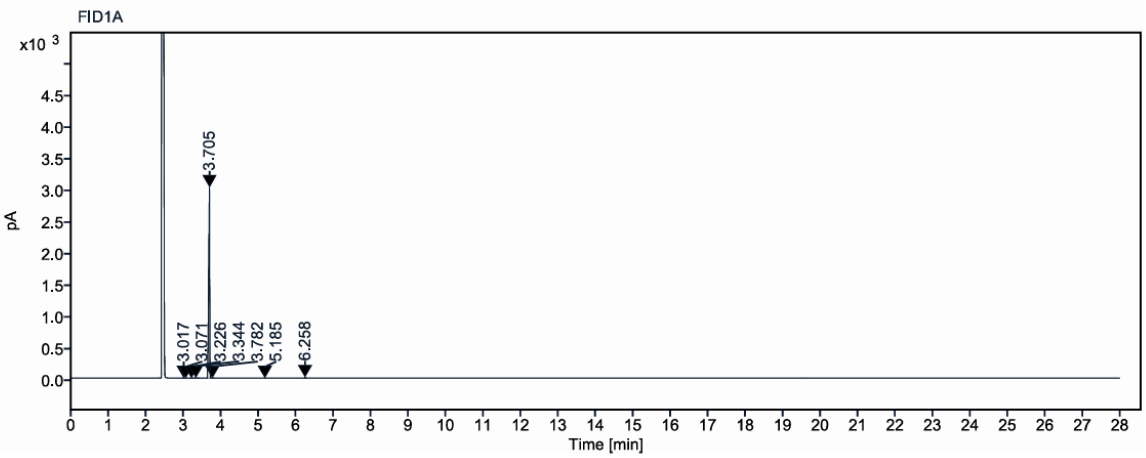
ANALYTICAL GC REPORT

Agilent

Data file:	LDIBF0216.dx
Method Name:	HP-5-GENERAL-METHOD.amx
Sample Name:	LDIBF0216
Injection Acquired Date	2026-02-20 16:20:26+05:30
Injection Processed Date	2026-02-20 18:22:19+05:30
Inj. volume:	0.500 µL
Vial Number:	108
Data File Directory:	/2026/FEB-2026/Results/20022026/20260220 154757004.rslt
Injection Column Name	HP-5
Instrument ID	SA/AD/INS/037



RT[MIN]	AREA	AREA %
3.017	2.095	0.04
3.071	1.824	0.03
3.226	2.553	0.04
3.344	13.920	0.23
3.705	5914.975	99.34
3.782	2.912	0.05
5.185	0.438	0.01
6.258	15.614	0.26

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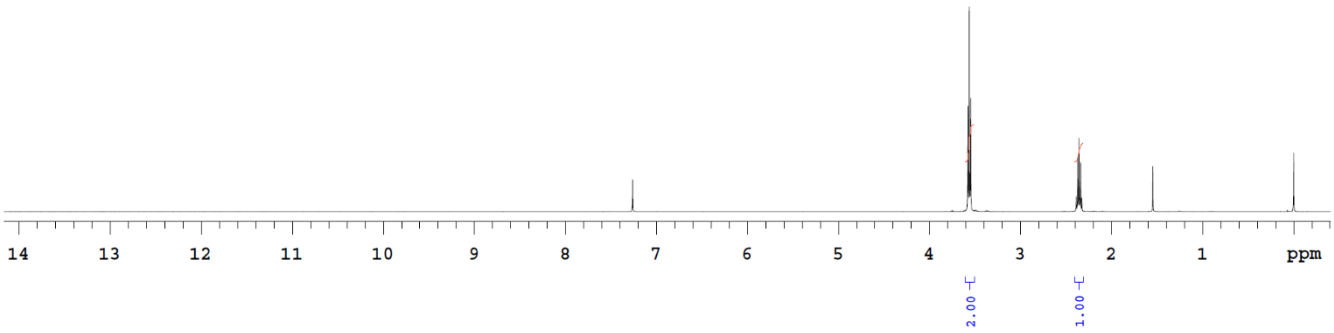
Identification by NMR: H1NMR

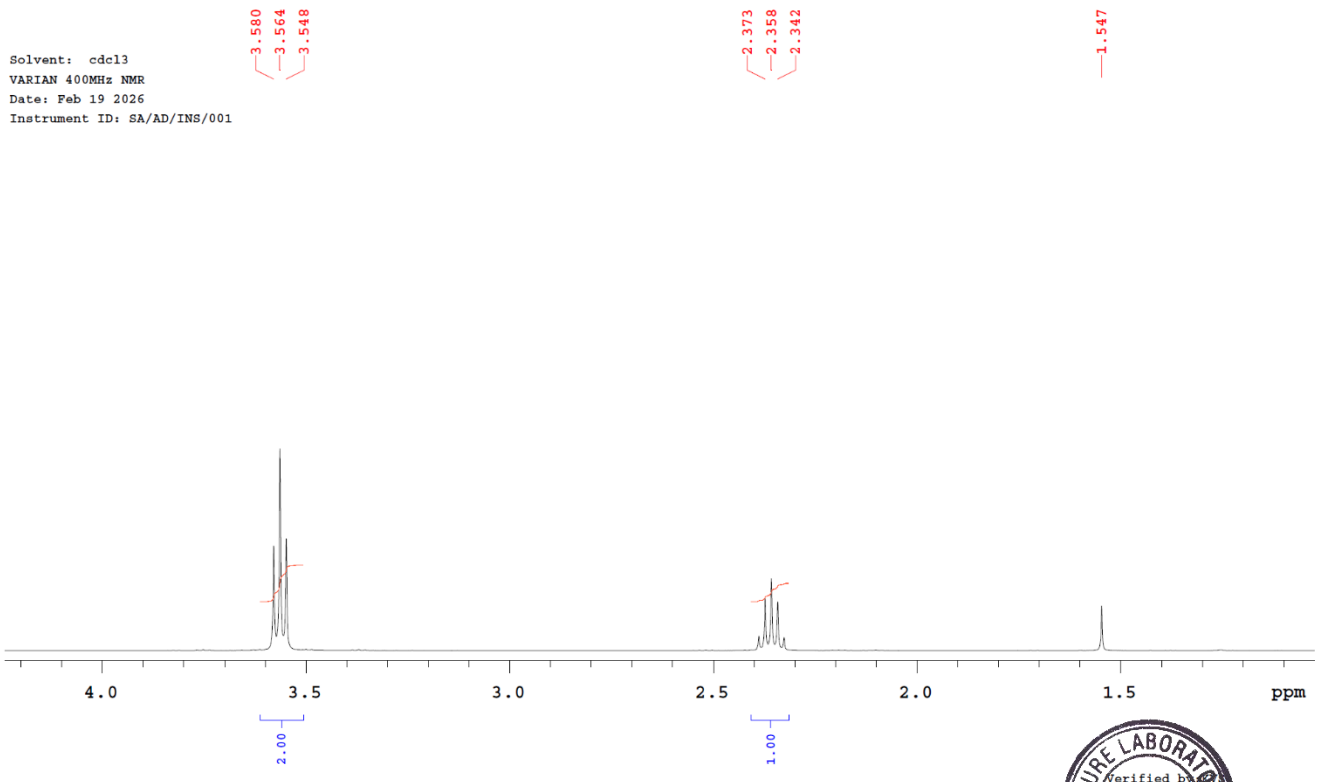
Sample Code: LDIBF0216

Solvent: cdcl3
VARIAN 400MHz NMR
Date: Feb 19 2026
Instrument ID: SA/AD/INS/001



Sample Code: LDIBF0216

Solvent: cdcl3
VARIAN 400MHz NMR
Date: Feb 19 2026
Instrument ID: SA/AD/INS/001



Plotname: LDIBF0216_PROTON_20260219_01_plot02

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Verified by

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Identification by NMR: H1NMR

exp2 PROTON

SAMPLE		PRESATURATION	
date	Feb 19 2026	satmode	n
solvent	cdcl3	wet	n
file	/home/varian/~	SPECIAL	
data/2026/Feb/LDIB~		temp	not used
F0216_20260219_01/~		gain	30
LDIBF0216_PROTON_2~		spin	20
0260219_01.fid		hst	0.008
ACQUISITION		pw90	13.700
sw	7183.9	alfa	10.000
at	4.000	FLAGS	
np	57472	il	n
fb	4000	in	n
bs	2	dp	y
d1	1.000	hs	nn
nt	128	PROCESSING	
ct	8	lb	0.50
TRANSMITTER		fn	not used
tn	H1	DISPLAY	
sfrq	399.689	sp	-793.2
tof	799.3	wp	7183.7
tpwr	59	rfl	793.4
pw	6.850	rfp	0
DECOUPLER		rp	138.2
dn	C13	lp	0
dof	0	PLOT	
dm	nnn	wc	268
decwave	W40_GATB-0~	sc	0
	12	vs	177
dpwr	35	th	3
dmf	29412	ai	ph

INDEX	FREQUENCY	PPM	HEIGHT
1	2902.7	7.262	6.5
2	1430.7	3.580	21.3
3	1424.4	3.564	41.3
4	1418.2	3.548	22.9
5	948.4	2.373	10.8
6	942.3	2.358	14.8
7	936.1	2.342	10.0
8	618.2	1.547	9.2
9	0.0	0.000	11.9

Plotname: LDIBF0216_PROTON_20260219_01_plot03

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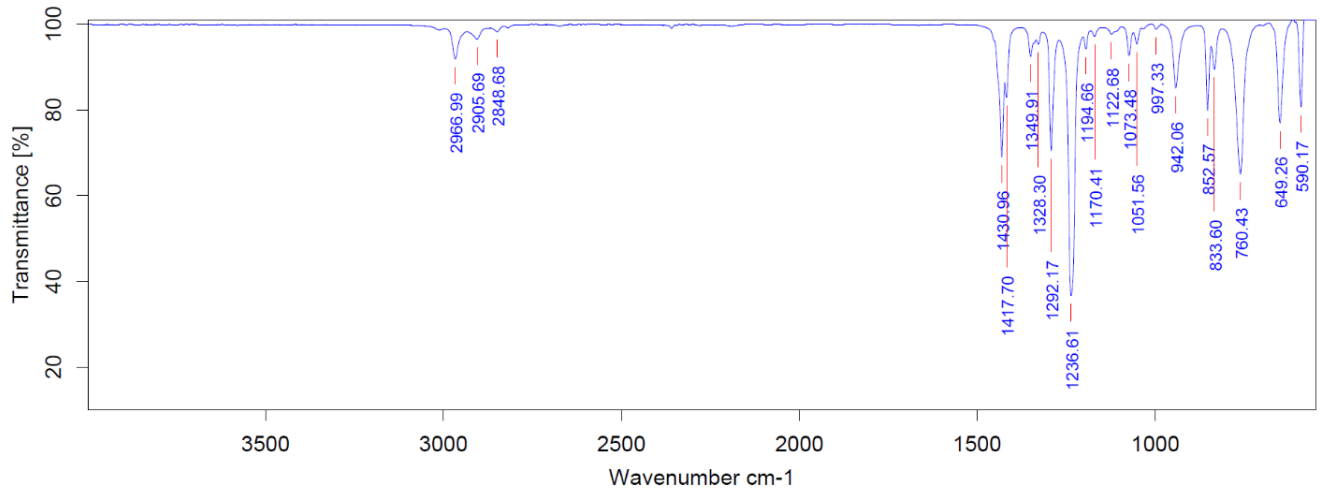
Identification by Infrared Spectroscopy (IR)



Path/File Name:D:\2026\FEB-2026/LDIBF0216.0

Sample Name:LDIBF0216

Lot No./Batch No:LDIBF0216

Date & Time:2/19/2026,7:33:30 PM

Experiment:FEBRUARY-2026-.XPM

Resolution:2

Sample Scans:16

"D:\2026\FEB-2026\LDIBF0216.0" 1
- Peak Table TR
  - Peak Picking

Peak Picking	Values
Method:	Standard
Searched for minima:	Yes
Number of peaks:	22
Sensitivity > [%]:	10.000000
From:	4000.000000
to:	400.000000
Absolute peak height >	0.000000
Relative peak height < [%]	0.000000
Absolute peak height <	0.000000

Wavenumber	Abs. intensity	Rel. intensity	Width	Found if threshold <	Shoulder
1430.9620	0.690	0.303	13.5311	33.695755	0
1292.1736	0.705	0.264	11.5808	28.737528	0
1236.6099	0.366	0.750	21.3828	70.668884	0
942.0605	0.851	0.147	17.6093	16.284273	0
852.5744	0.799	0.192	9.6167	21.155901	0
760.4333	0.650	0.501	35.2009	39.038258	0
649.2587	0.769	0.308	20.2793	26.021677	0
590.1746	0.806	0.350	8.4713	23.061766	0
562.7945	1.081	0.128	7.2075	10.652501	0
2966.9921	0.919	0.081	19.5270	106.254189	0
2905.6862	0.965	0.018	18.2570	24.172640	0
2848.6760	0.982	0.009	13.5305	25.521645	0
1417.6995	0.829	0.049	31.6596	11.441856	0
1349.9082	0.924	0.063	16.9468	19.699097	0
1328.3048	0.953	0.016	39.9490	3.482277	0
1194.6596	0.942	0.030	7.2815	4.500642	0
1170.4114	0.972	0.013	9.5516	1.972811	0
1122.6830	0.977	0.016	22.9968	23.151632	0
1073.4759	0.926	0.069	10.8575	91.566780	0
1051.5623	0.953	0.031	9.1426	36.831856	0
997.3251	0.988	0.011	12.0047	7.328012	0

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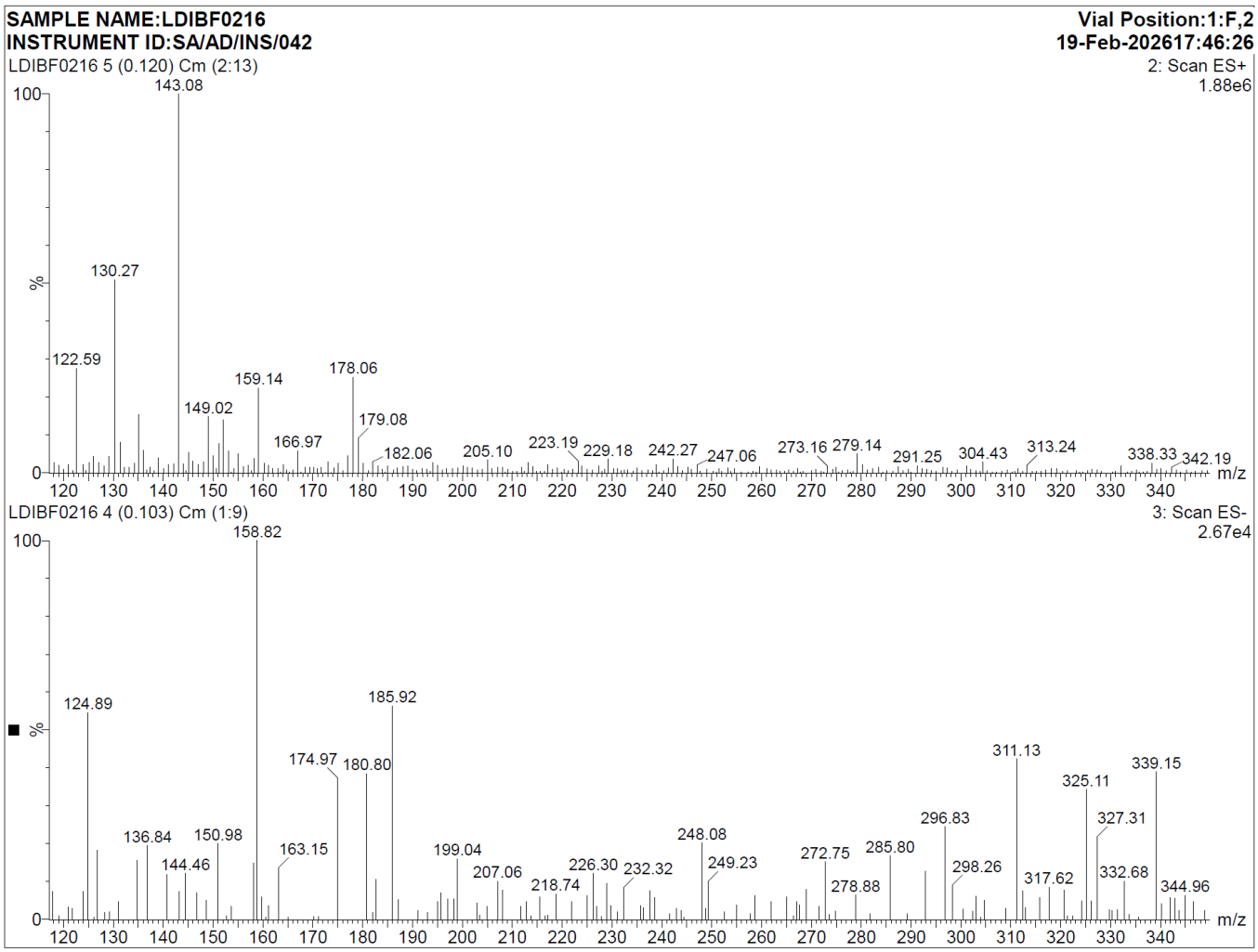
Identification by Mass spectrometry (MS)



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