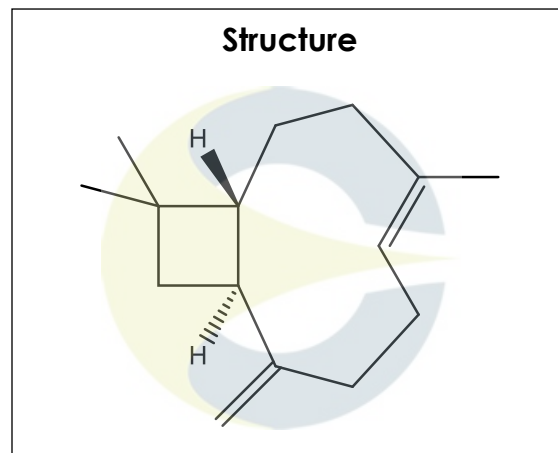


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PRODUCT NAME	(-)-trans-Caryophyllene
PART NUMBER	00003250
STANDARD TYPE	Analytical Standard (AS)
LOT NUMBER	00003250-433
REPORT NUMBER	CDXA-RSS-8712-00
SAMPLE NUMBER	CDXP-19-00671
DATE OF SAMPLE	11/13/2019
DATE OF REPORT	01/06/2022



CHEMICAL NAMES	(1R,4E,9S)-4,11,11-Trimethyl-8-methylene-bicyclo(7.2.0)undec-4-ene; Caryophyllene; β-Caryophyllen; l-Caryophyllene
CHEMICAL FORMULA	C ₁₅ H ₂₄
MOLECULAR WEIGHT (MW)	204.35
CHEMICAL FAMILY	Essential oils
CAS NUMBER	[87-44-5]
EC#(EINECS)	201-746-1
RTECS	DT8400000

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
GC	0.700.10.2.METH140	≥ 75%	98.3%
Mass Spectrum	0.700.10.2.METH140	Conforms	Conforms
Appearance	NA	NA	Clear liquid

STORAGE CONDITIONS

STORAGE	-20 °C in a dry place.
EXPIRATION DATE	11/2024 under the above conditions.

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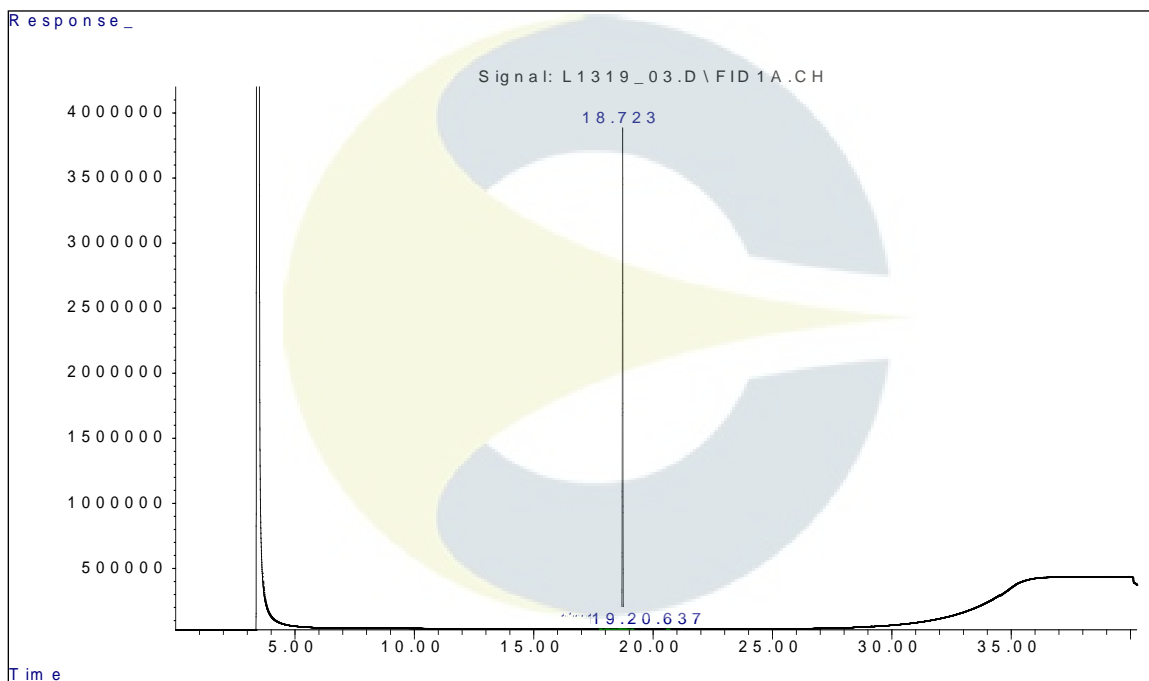
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ANALYTICAL CONDITIONS

INSTRUMENT	AGILENT 7890B WITH FLAME IONIZATION DETECTOR (FID) AND AGILENT 5977B MASS SELECTIVE DETECTOR (MSD)
COLUMN	Phenomenex Zebron ZB-5HT Inferno, 30 m x 0.32 mm x 0.25 μm; connected to an MXT Y-union, connected to a Restek Siltek deactivated guard column: 10 m x 0.25 mm to FID; and a 5 m x 100 μm transfer line to MSD.
CARRIER GAS	Helium
COLUMN TEMP.	Isothermic 40 °C for 5.0 minutes, then increasing at 10.0 °C/minute to 340 °C. Hold at 340 °C for 5.0 minutes.
FLOW RATE	2.0 mL/minute
INJECTOR TEMP.	300 °C
INJECTOR SPLIT RATIO	20:1
INJECTION VOL.	1.0 μL
INJECTION CONC.	2.2 mg/mL in methanol
DETECTION	FID (350 °C) & MSD (Transfer line 3000 °C, Source 250 °C, Quad 200 °C)

GC CHROMATOGRAM OF (-)-TRANS-CARYOPHYLLENE (CDXP-19-00671)

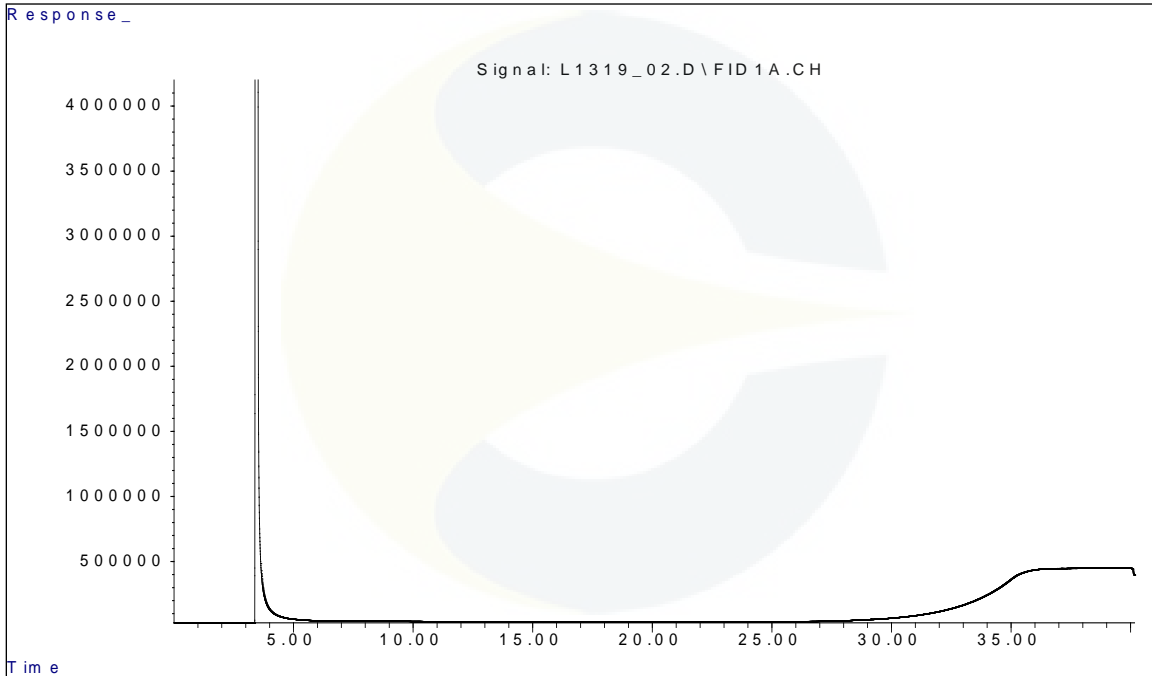


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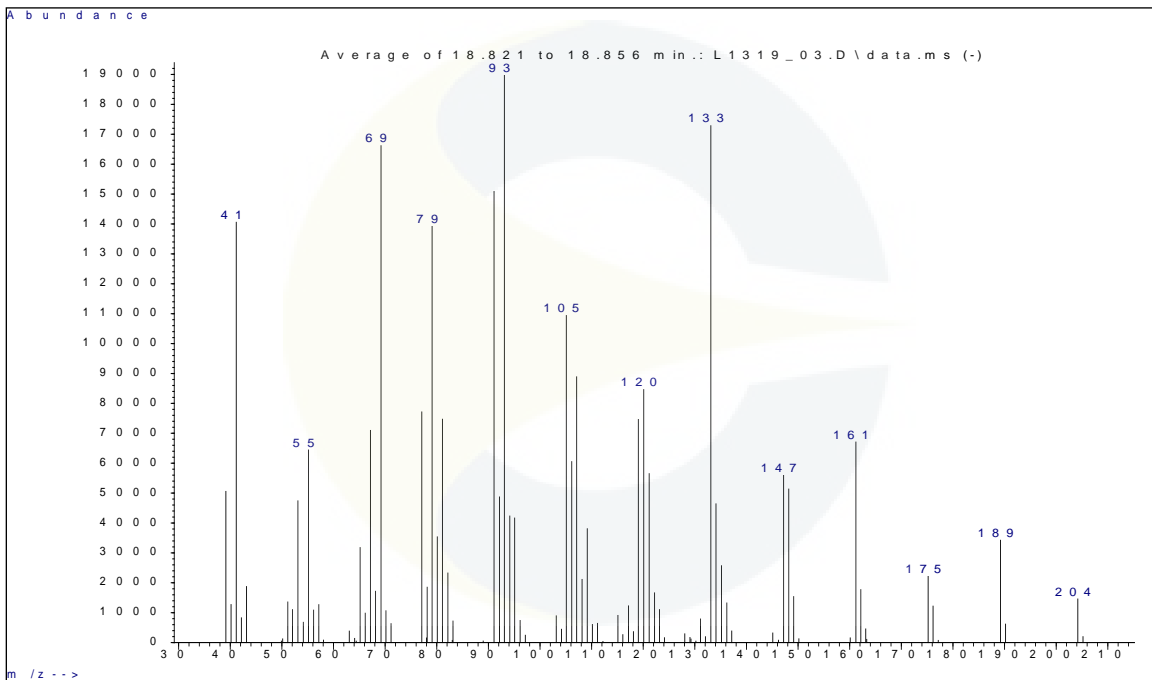
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MASS SPECTRUM OF (-)-TRANS-CARYOPHYLLENE (CDXP-19-00671)



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REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	01/06/2022	New report

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