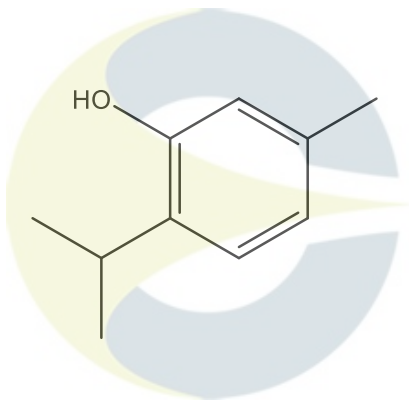


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PRODUCT NAME	Thymol	<div style="text-align: center;"> Structure  </div>
PART NUMBER	00020295	
STANDARD TYPE	Primary (P)	
LOT NUMBER	00020295-883	
REPORT NUMBER	CDXA-RSS-4148-03	
SAMPLE NUMBER	CDXA-10-5425	
DATE OF SAMPLE	08/26/2010	
DATE OF RE-EVALUATION	03/29/2012 (1 st); 03/25/2015 (2 nd); 04/22/2019 (3 rd); 03/07/2023 (4 th)	
DATE OF REPORT	03/14/2023	

CHEMICAL NAMES	5-Methyl-2-(1-methylethyl)-phenol; Thyme camphor; m-Thymol; p-Cymen-3-ol
CHEMICAL FORMULA	C ₁₀ H ₁₄ O
MOLECULAR WEIGHT (MW)	150.22
CHEMICAL FAMILY	Monoterpenes
CAS NUMBER	[89-83-8]
EC#(EINECS)	201-944-8
RTECS	XP2275000

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	99.8%
GC	0.700.10.2.METH140	≥ 90%	99.9%
NMR	99.1-CD-1.0-000122	Conforms to structure	Conforms to structure
Mass Spectrum	99.1-01-1.0-000766	Conforms	Conforms
Residual Solvent	99.1-CD-5.0-000115	NA	DMF – 0.1%
Water	0.700.12.37	NA	ND
Appearance	NA	NA	White crystals

ADJUSTED PURITY: 99.8% IS BASED ON (100 - 0.1 SOLVENTS - 0.0 WATER) X 99.9% GC

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	03/2028 under the above conditions.

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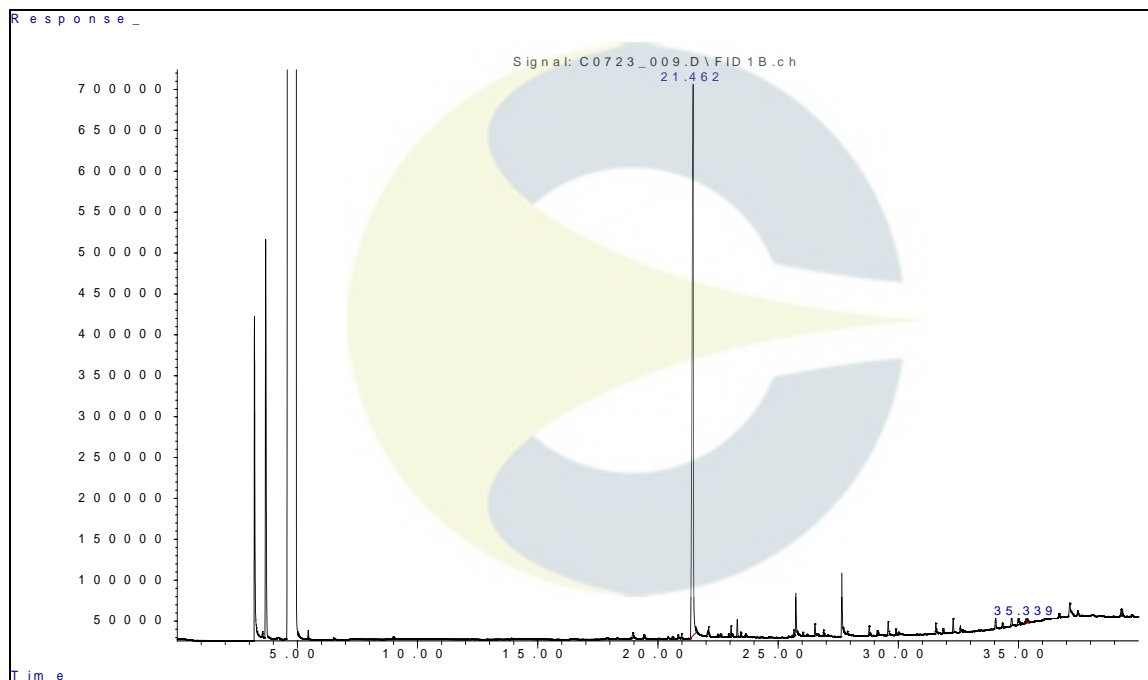
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ANALYTICAL CONDITIONS

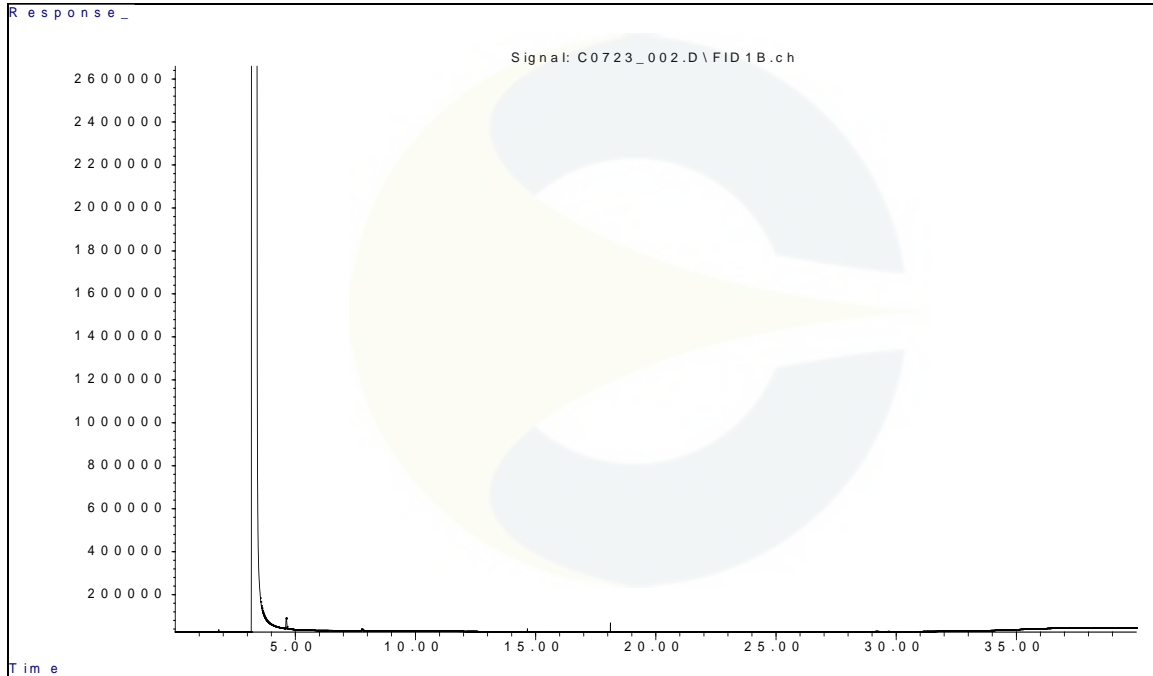
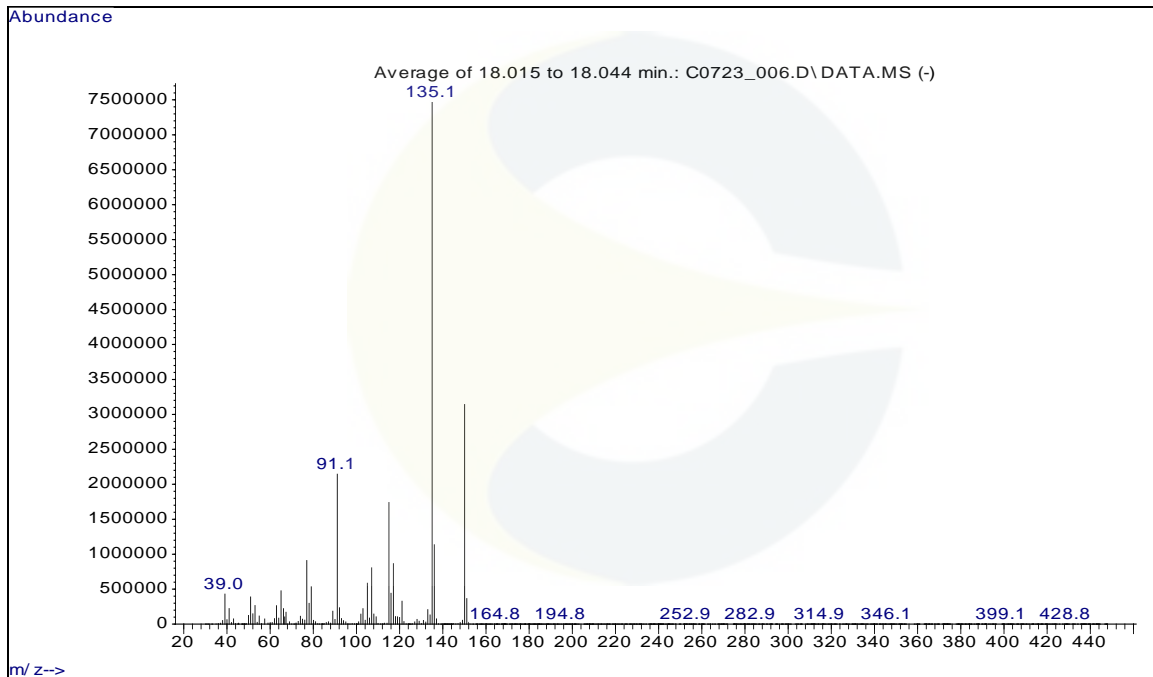
INSTRUMENT	AGILENT 7890B WITH FLAME IONIZATION DETECTOR (FID) AND Agilent 5973N Mass Selective Detector (MSD)
COLUMN	Phenomenex Zebron ZB-5plus, 30 m x 0.32 mm x 0.25 μm
CARRIER GAS	Helium
COLUMN TEMP.	Isothermic 40 °C for 5.0 minutes, then increasing at 10.0 °C/minute to 340 °C. Hold at 340 °C for 5.0 minutes.
FLOW RATE	2.0 mL/minute
INJECTOR TEMP.	300 °C
INJECTOR SPLIT RATIO	20:1
INJECTION VOL.	1.0 μL
INJECTION CONC.	1.0 mg/mL in Methanol
DETECTION	FID (300 °C) & MSD (Transfer line 280 °C, Source 230 °C, Quad 150 °C)

GC CHROMATOGRAM OF THYMOL (CDXA-10-5425)



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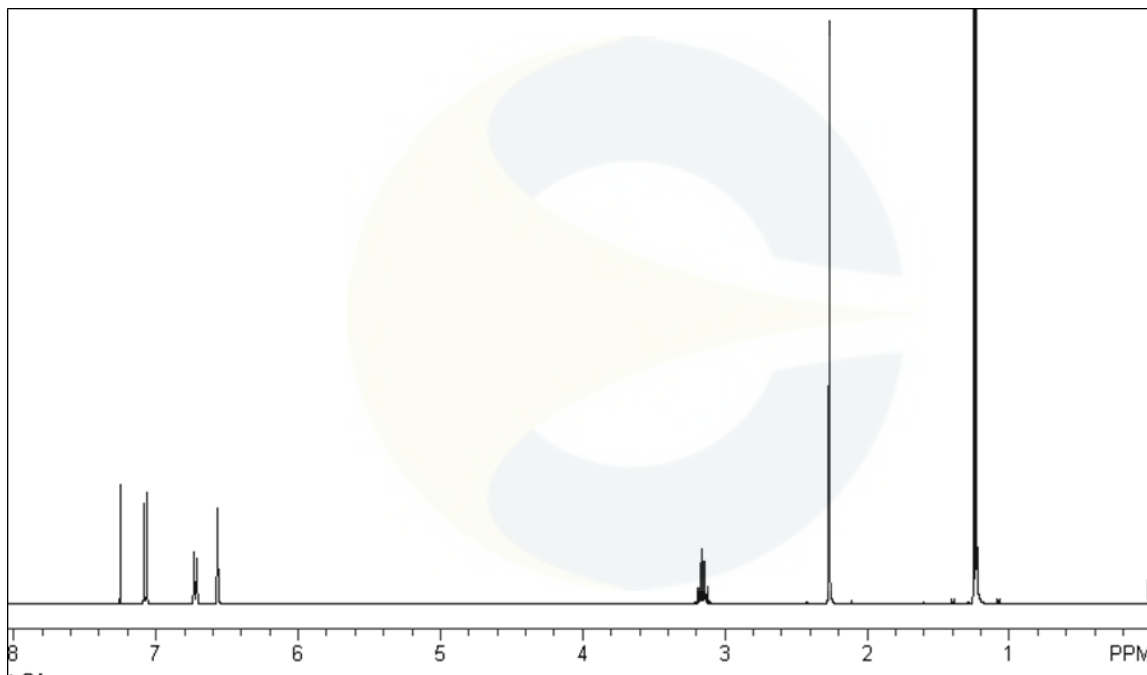
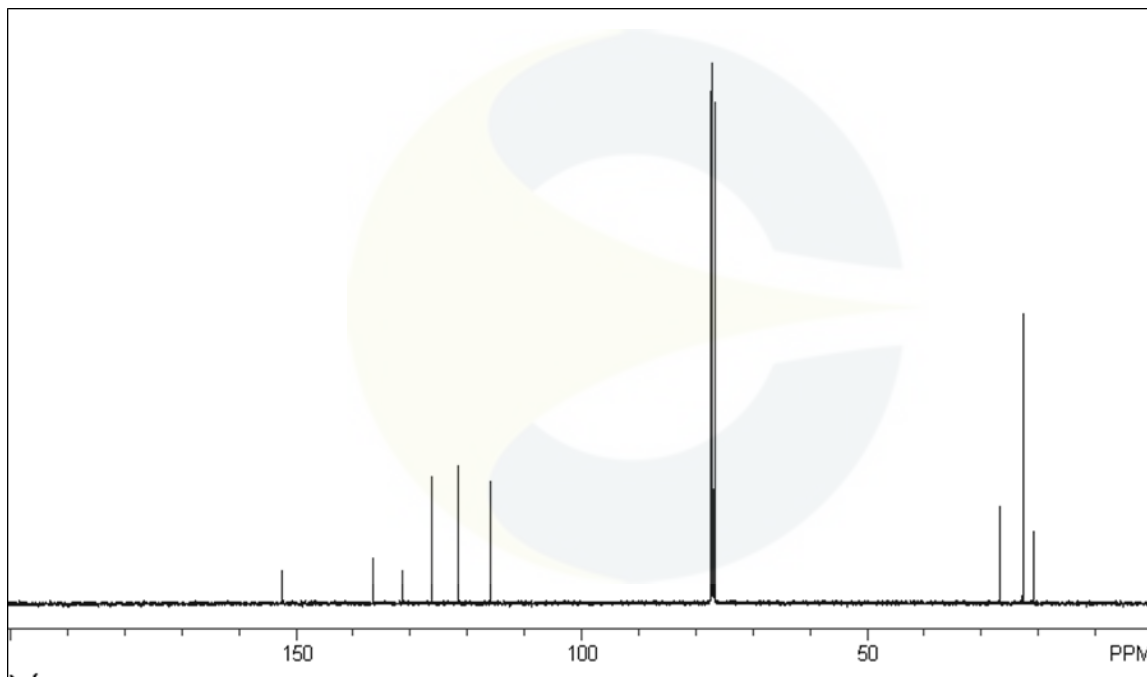
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GC CHROMATOGRAM OF DILUENT BLANK**MASS SPECTRUM OF THYMOL (CDXA-10-5425)**

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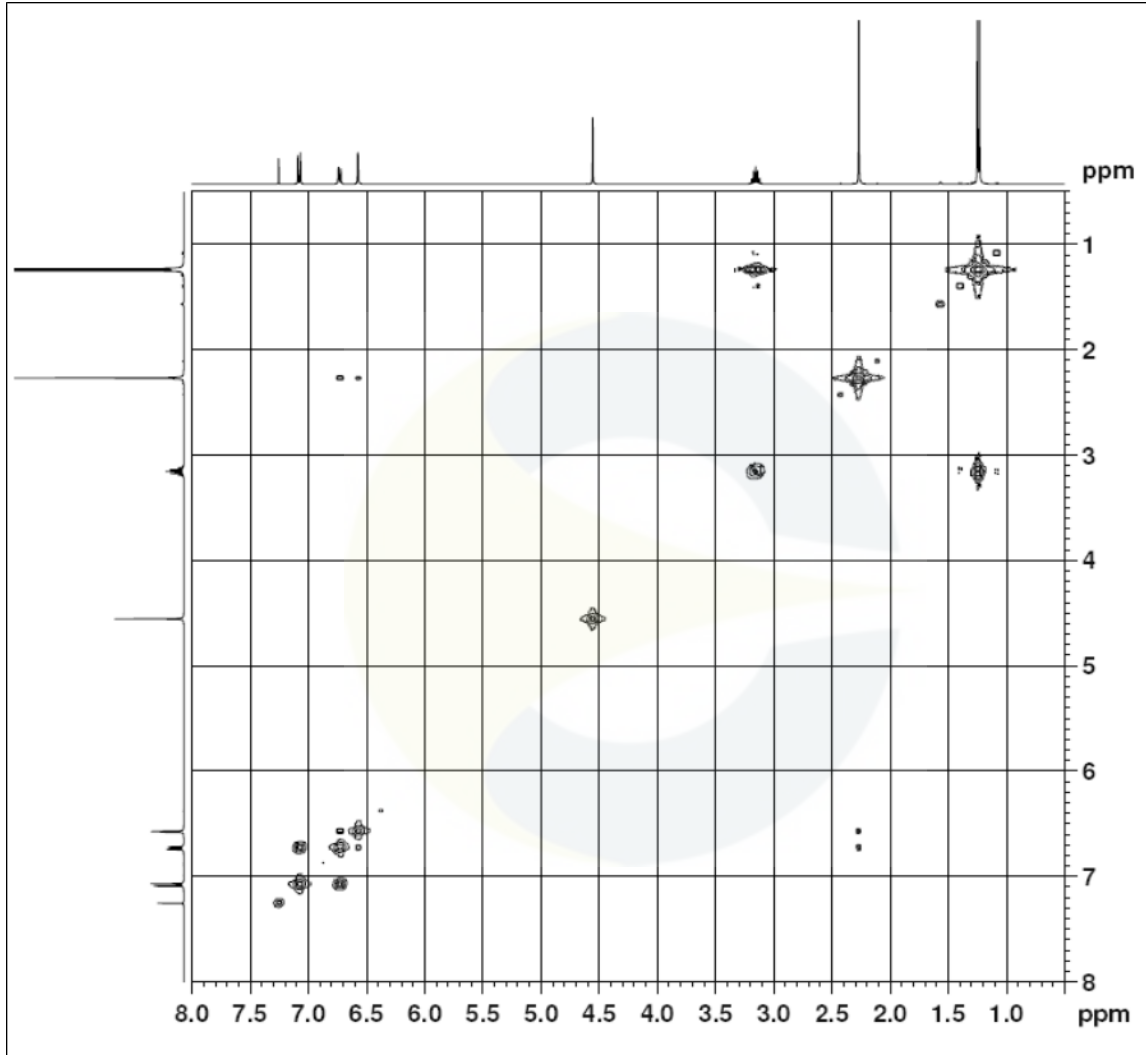
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Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi - 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com

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¹H-NMR SPECTRUM OF THYMOL (CDXA-10-5425) IN CDCl₃

¹³C-NMR SPECTRUM OF THYMOL (CDXA-10-5425) IN CDCl₃


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 Email: customerservice@lifetechindia.com Website: www.lifetechindia.com

COSY-NMR SPECTRUM OF THYMOL (CDXA-10-5425) IN CDCl₃

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	03/29/2012	New report, re-evaluation and upgrade of material
01	04/10/2015	Passed second re-evaluation by GC-FID. Updated expiration date.
02	05/08/2019	Passed third re-evaluation. Updated expiration date, analytical conditions, chromatograms, and mass spectrum. Removed melting point.
03	03/14/2023	Passed fourth re-evaluation. Updated expiration date, analytical conditions, chromatograms, and mass spectrum.

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