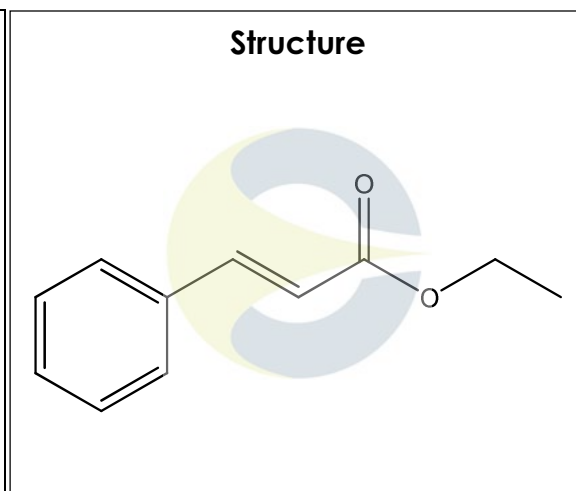


CERTIFICATE OF ANALYSIS

For Laboratory Use Only

PRODUCT NAME	Cinnamic acid ethylester
PART NUMBER	00003663
STANDARD TYPE	Analytical Standard (AS)
LOT NUMBER	00003663-ACV
REPORT NUMBER	CDXA-RSS-4481-01
SAMPLE NUMBER	CDXA-11-2060
DATE OF SAMPLE	03/29/2011
DATE OF RE-EVALUATION	08/03/2015
DATE OF REPORT	08/21/2015



CHEMICAL NAMES	Ethyl cinnamate; Ethyl 3-phenyl-2-propenoate; 3-phenyl-2-Propenoic acid ethyl ester; Ethyl 3-phenylacrylate
CHEMICAL FORMULA	C ₁₁ H ₁₂ O ₂
MOLECULAR WEIGHT (MW)	176.21
PUBLISHED MELTING POINT	NA
CHEMICAL FAMILY	Phenolic acids
CAS NUMBER	[103-36-6]
EINECS	203-104-6
RTECS	GD9010000

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
GC	See Below	NA	98.8%
Mass Spectrum	Direct Infusion, APCI (+)	Conforms	Conforms
Appearance	NA	NA	Colorless liquid

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	08/2020 under the above conditions.

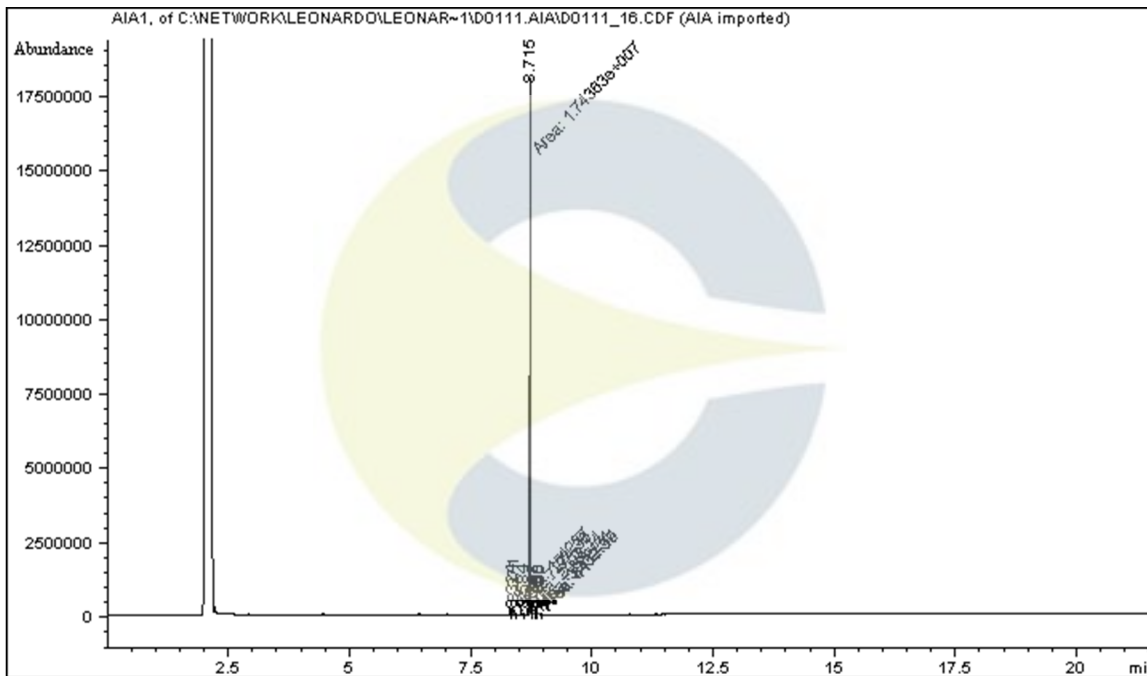
CERTIFICATE OF ANALYSIS

For Laboratory Use Only

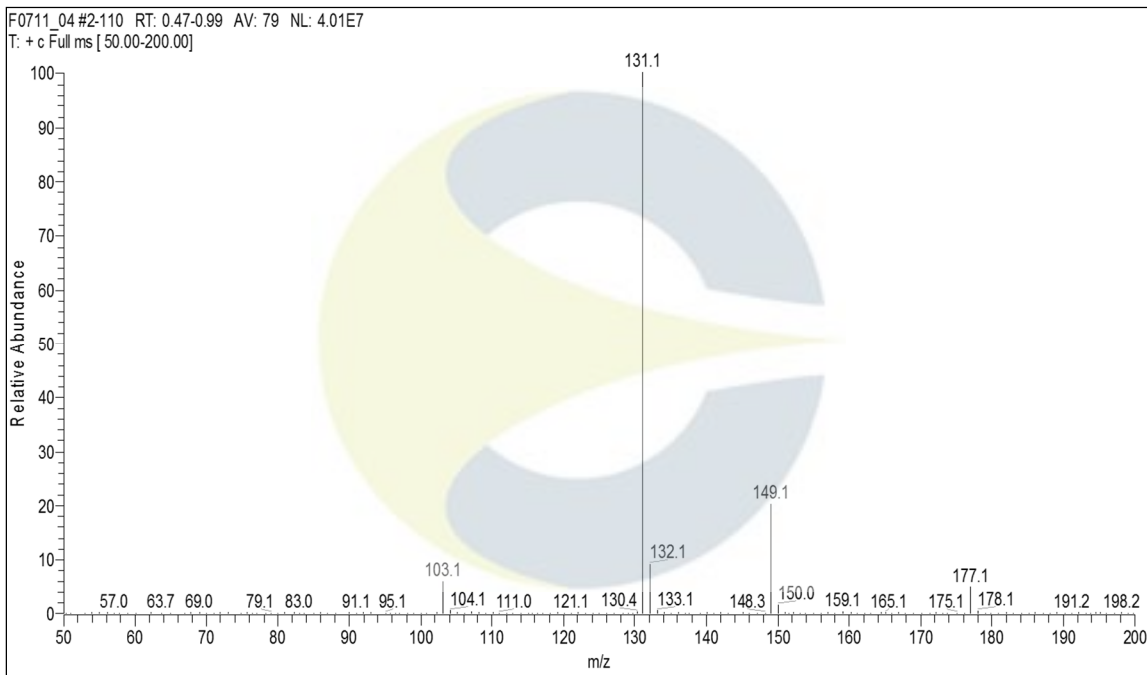
ANALYTICAL CONDITIONS

INSTRUMENT	AGILENT 6890N WITH FID AND 5973N MSD (LEONARDO)
COLUMN	ZB-5HT Inferno, 30 m x 0.32 mm x 0.25 µm; S/N 119085
CARRIER GAS	Helium
COLUMN TEMP.	40 °C for 3.0 minutes, then increasing at 30.0 °C/minute to 300 °C. Hold at 300 °C for 10.0 minutes.
FLOW RATE	2.2 mL/minute
INJECTOR TEMP.	280 °C
INJECTOR SPLIT RATIO	9.0:1
INJECTION VOLUME	2.0 µL
INJECTION CONC.	2.5 mg/mL in Methanol
DETECTION	FID (300 °C)

GC CHROMATOGRAM OF CINNAMIC ACID ETHYLESTER (CDXA-11-2060)



MASS SPECTRUM OF CINNAMIC ACID ETHYLESTER (CDXA-11-2060)



REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	06/17/2011	New report
01	08/21/2015	Passed re-evaluation by GC/FID. Updated expiration date, chemical names, standard type and melting point.