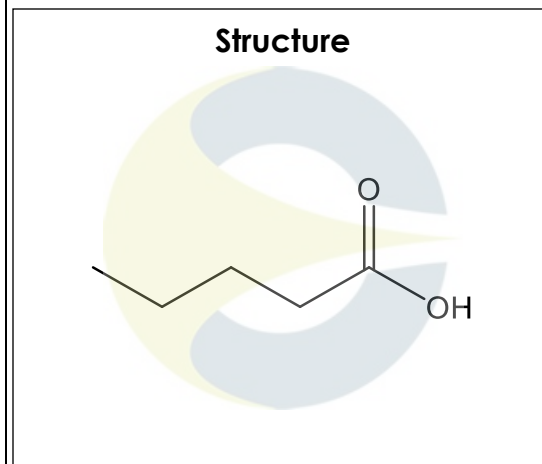


Certificate of Analysis
For Laboratory Use Only

PRODUCT NAME	Valeric acid
PART NUMBER	00022195
STANDARD TYPE	Analytical Standard (AS)
LOT NUMBER	00022195-WKF
REPORT NUMBER	CDXA-RSS-7454-01
SAMPLE NUMBER	CDXA-17-000507
DATE OF SAMPLE	01/11/2017
DATE OF RE-EVALUATION	03/05/2021
DATE OF REPORT	03/31/2021



CHEMICAL NAMES	1-Butanecarboxylic acid; n-Pentanoic acid; Pentanoic acid; Propylacetic acid
CHEMICAL FORMULA	C ₅ H ₁₀ O ₂
MOLECULAR WEIGHT (MW)	102.13
CHEMICAL FAMILY	Oils
CAS NUMBER	[109-52-4]
EC#(EINECS)	203-677-2
RTECS	YV6100000

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
GC	0.700.10.2.METH140	≥ 75%	99.2%
Mass Spectrum	0.700.10.2.METH140	Conforms	Conforms
Appearance	NA	NA	Liquid

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	03/2026 under the above conditions.

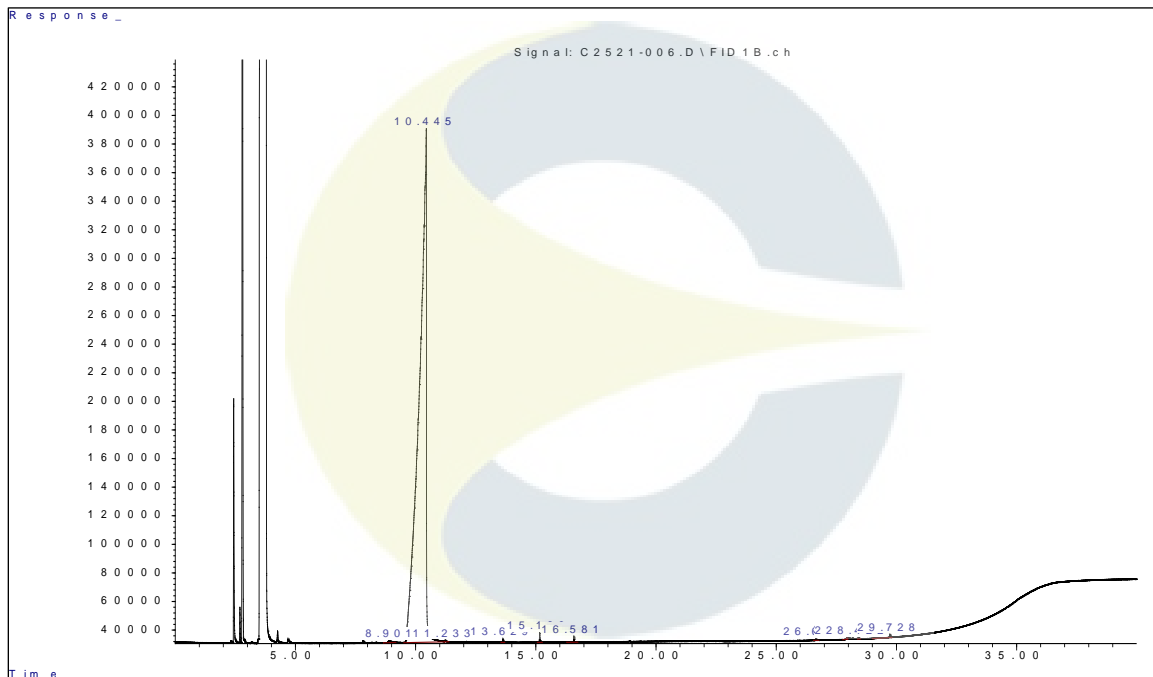
This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

Certificate of Analysis

For Laboratory Use Only

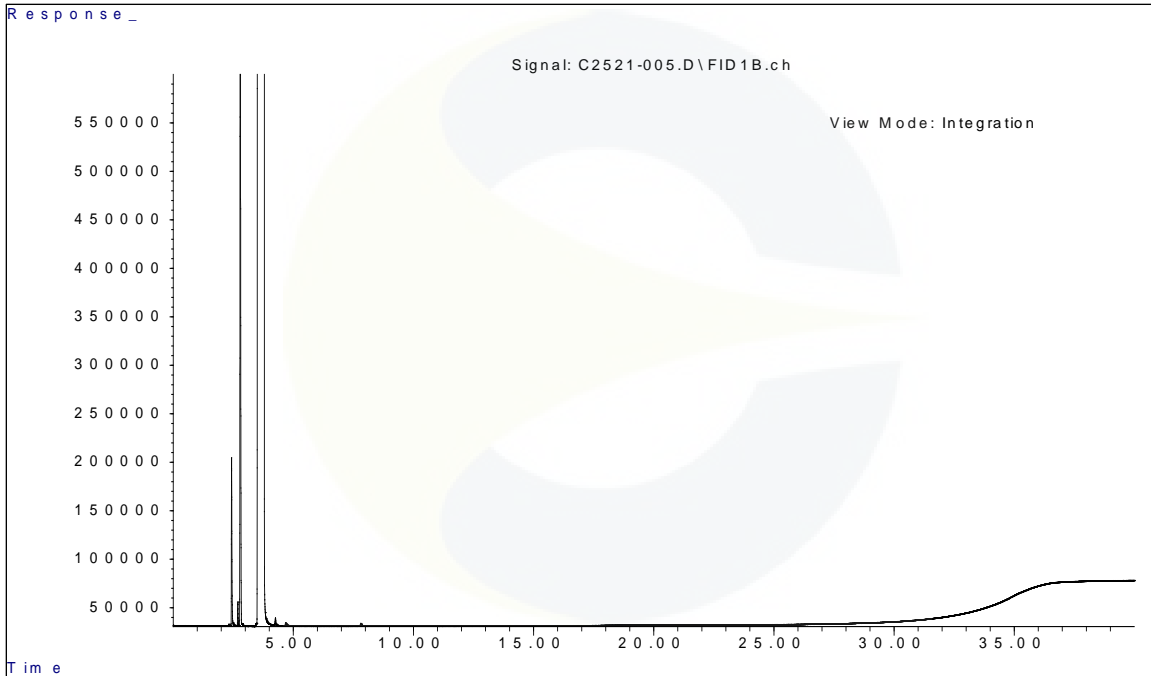
ANALYTICAL CONDITIONS

INSTRUMENT	AGILENT 7890B WITH FLAME IONIZATION DETECTOR (FID) AND AGILENT 5977B 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.	1.9 mg/mL in Chloroform
DETECTION	FID (350 °C) & MSD (Transfer line 280 °C, Source 230 °C, Quad 150 °C)

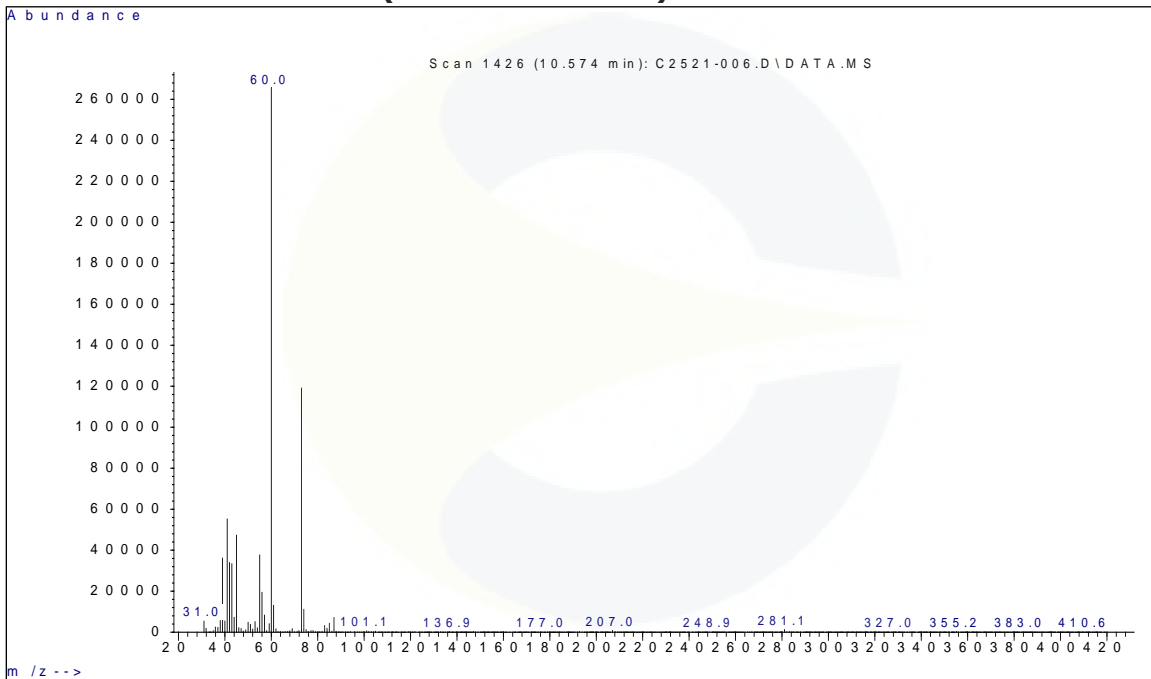
GC CHROMATOGRAM OF VALERIC ACID (CDXA-17-000507)


This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

GC CHROMATOGRAM OF DILUENT BLANK



MASS SPECTRUM OF VALERIC ACID (CDXA-17-000507)



This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	03/09/2017	New report
01	03/31/2021	Material passed reeval by GC-MS. Updated analytical results, analytical conditions, chromatograms, spectrum, and expiration date. Removed melting point.

This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.