PureSynth
Research Chemicals

Certificate of Analysis

Allyl Chloride

PurCert Standard for GC

Product Number	PSR38520	**CAS No.**	107-05-1
Brand	PureSynth	**Lot No.**	A38520T0823
Molecular Formula	C_3H_5Cl	**Date of Mfg.**	August.2023
Molecular Weight	76.52 g/mol	**Date of Exp.**	July.2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Assay (GC-FID)	≥ 98.5 %	98.92 %
Water (By KF)	NMT 0.0500 %	0.0301 %
Identification by ^1H NMR	Conforms to structure	Conforms
Identification by GC-MS	Conforms to molecular mass	Conforms
Identification by IR	Conforms to structure	Conforms

***Traceable to Internal Reference Standard**

Storage Condition: Store at a temperature of 2-8°C and keep the container tightly closed.

Remark: The batch complies with the prescribed quality of the above specification.

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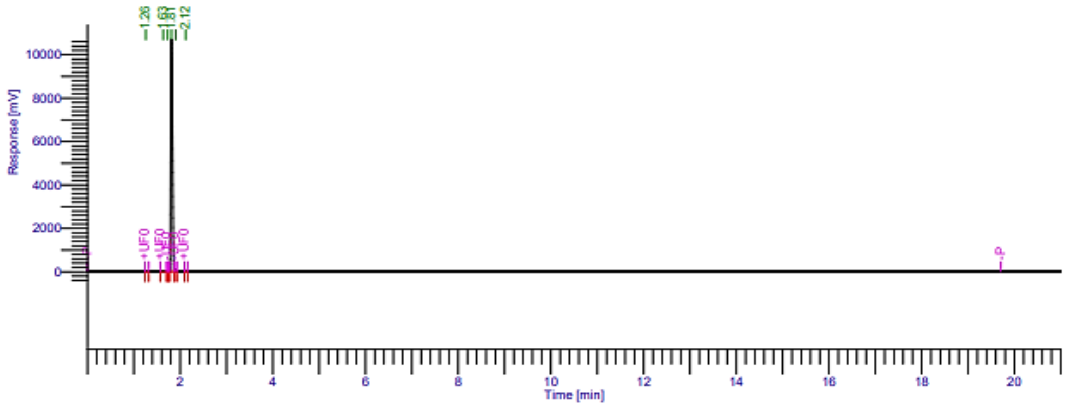
Assay by GC-FID

METHOD: GC- FID conditions:

Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron
Instrument: PerkinElmer, GC 2014,
Detector: FID, **Carrier gas:** Nitrogen
Temp programming: Initial 50°C hold for 1min, 5°C Ramp/ min., 100 °C hold for 1 min., 25°C Ramp up to 250°C hold for 2 min., Run time 20 min.

Software Version	: 6.3.4.0700	Date	: 04-11-2023 10:37:06
Operator	: manager	Sample Name	: ALLYL CHLORIDE-A38520T0823
Sample Number	: 001	Study	:
AutoSampler	: BUILT-IN	Rack/Vial	: 0/42
Instrument Name	: Clarus 690	Channel	: A
Instrument Serial #	: None	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 21.00 min
Sampling Rate	: 12.5000 pts/s		
Sample Volume	: 1.000000 ul		
Sample Amount	: 1.0000	Area Reject	: 0.000000
Data Acquisition Time	: 03-11-2023 17:25:59	Dilution Factor	: 1.00
		Cycle	: 1



GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		1.257	69296.56	58753.12	0.22
2		1.632	83759.91	40744.69	0.26
3		1.731	18839.90	10236.33	0.06
4		1.812	31400593.13	1.12e+07	98.92
5		1.905	77240.16	76373.27	0.24
6		2.116	92609.99	57837.15	0.29
			31742339.64	1.14e+07	100.00

Warning -- Signal level out-of-range in peak

Missing Component Report

Component	Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 98.92 %

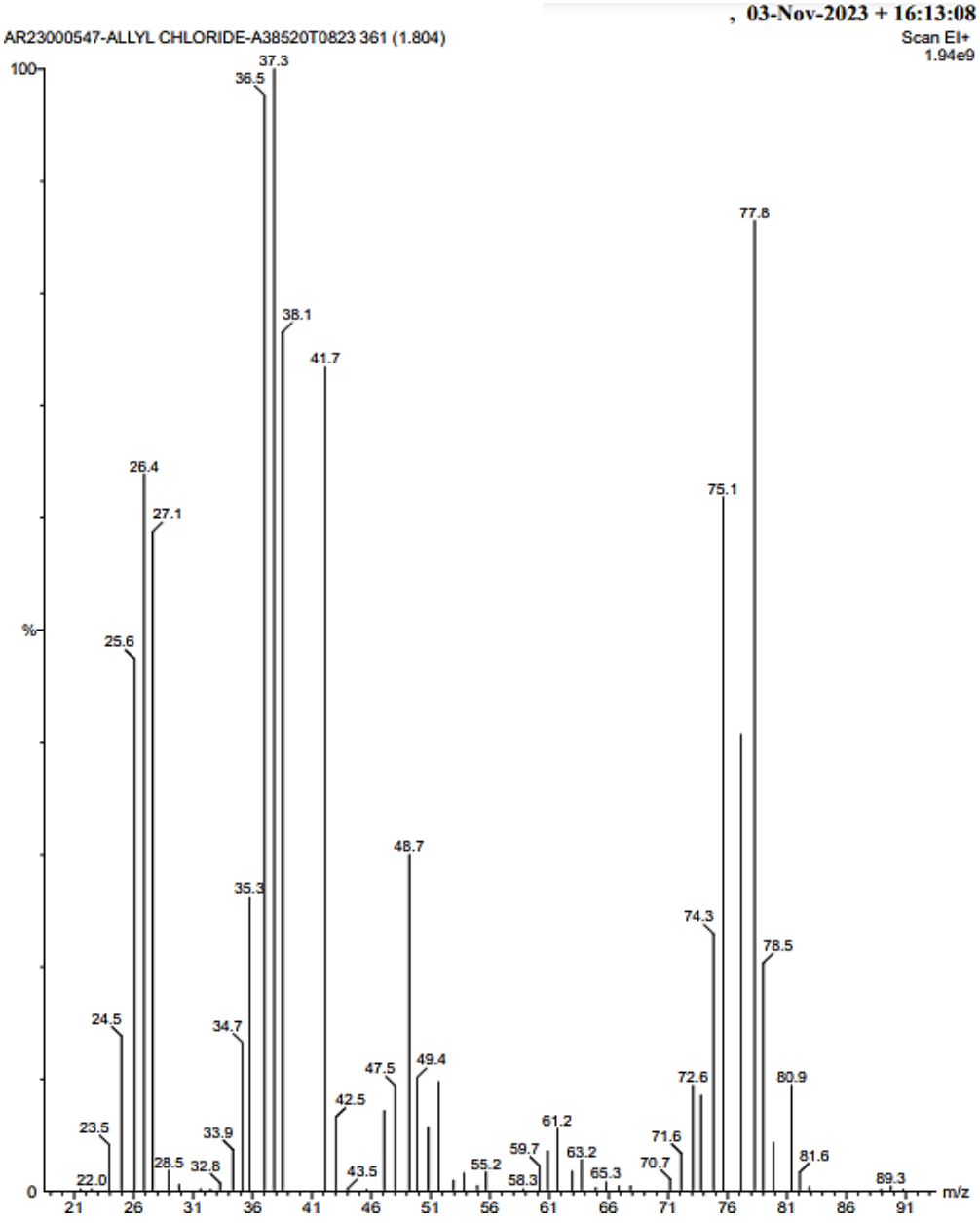
IDENTIFICATION TESTS

GC-MS Spectrum:

METHOD: GC-MS conditions:
Column: Agilent Technologies, Elite -5MS, 30 m X 0.25 mm, 1.0micron
Instrument: Perkin Elmer, **Carrier gas:** Helium
Source Temp.: 230°C, Transfer line: 250°C
Inlet Temp.: 180°C, **Diluent:** Methanol
Source energy: 70eV

Mass by GC-MS:

Product Name: Allyl Chloride
Product Code: PSR38520



Identification by GC-MS: Conforms to molecular mass

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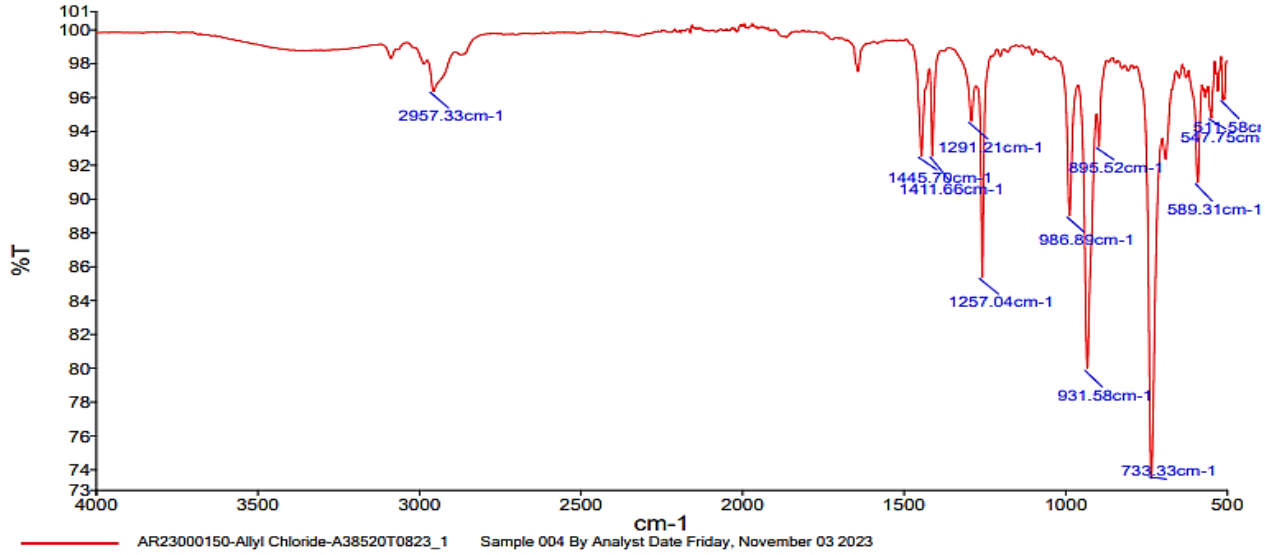
Infrared spectrum:

Product Name: Allyl Chloride

Product Code: PSR38520

Analyst
Date



Source Spectra Results	
Spectrum Name	Number Of Peaks
AR23000150-Allyl Chloride-A38520T0823_1	12

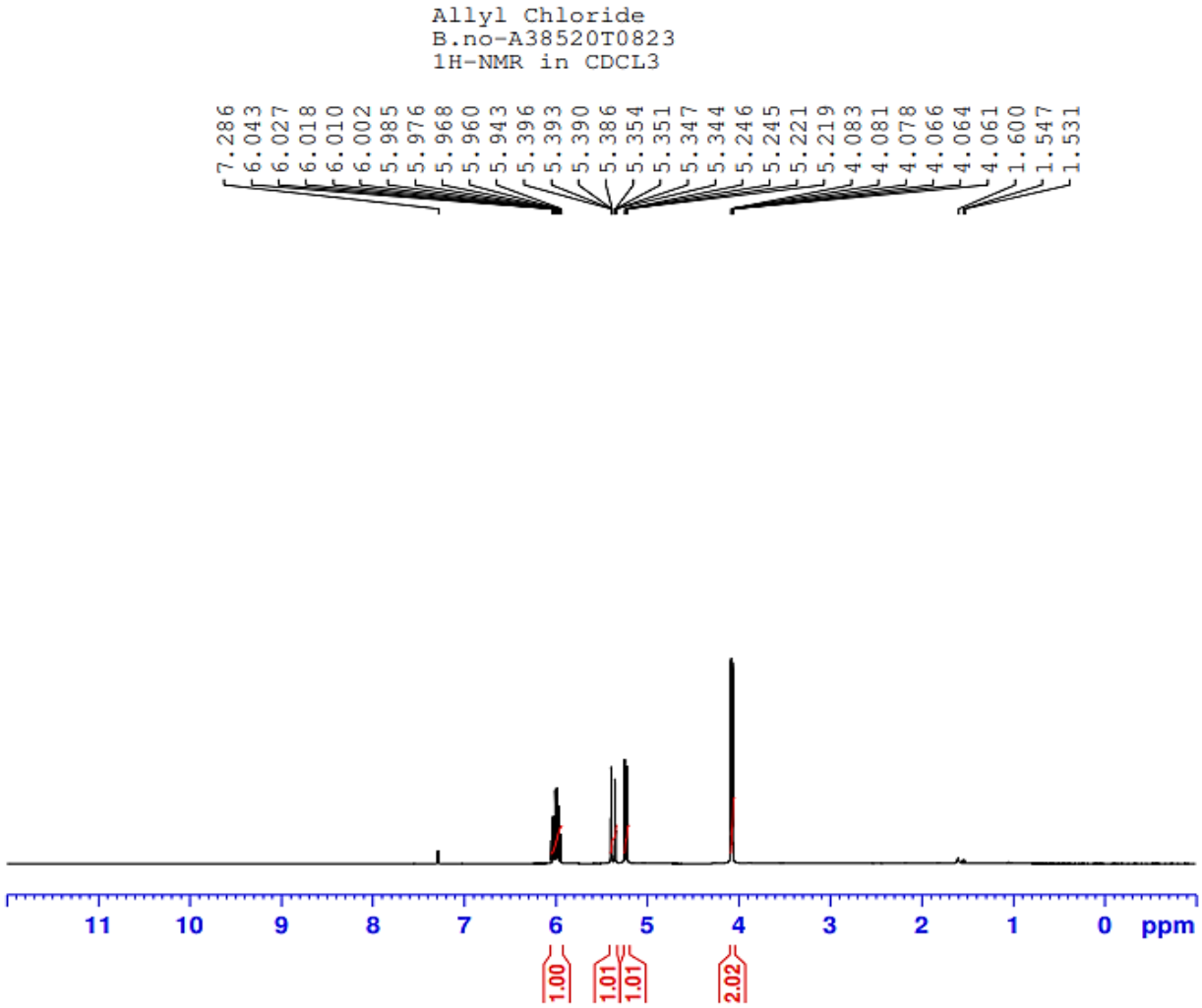
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	2957.33	96.39
2	1445.70	92.54
3	1411.66	92.57
4	1291.21	94.62
5	1257.04	85.39
6	986.89	89.02
7	931.58	79.96
8	895.52	93.11
9	733.33	73.47
10	589.31	90.98
11	547.75	94.80
12	511.58	95.90

Identification by IR: Conforms to structure

^{1}H NMR Spectrum:

Product Name: Allyl Chloride

Product Code: PSR38520



Identification by ^{1}H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR38520) = **0.0301 %**

Approved By

Head - Technical