

# Certificate of Analysis

## Triethylsilane PurTech Standard for GC

<b>Product Number</b>	PSI213	<b>CAS No.</b>	617-86-7
<b>Brand</b>	PureSynth	<b>Lot No.</b>	T37018SP0
<b>Molecular Formula</b>	C <sub>6</sub> H <sub>16</sub> Si	<b>Date of Mfg.</b>	January.2024
<b>Molecular Weight</b>	116.28 g/mol	<b>Date of Exp.</b>	December.2027

Test	Specification	Result
Description	Colorless liquid	Colorless liquid
Clarity	Clear	Clear
Assay (By GC)	≥ 99.5 %	99.83 %
Identification by <sup>1</sup> H NMR	Conform to structure	Conforms
Identification by GC-MS	Conform to molecular mass	Conforms
Identification by IR	Conform to structure	Conforms

**\*Traceable to Internal Reference Standard.**

**Storage Condition:** Store in a Room temperature 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

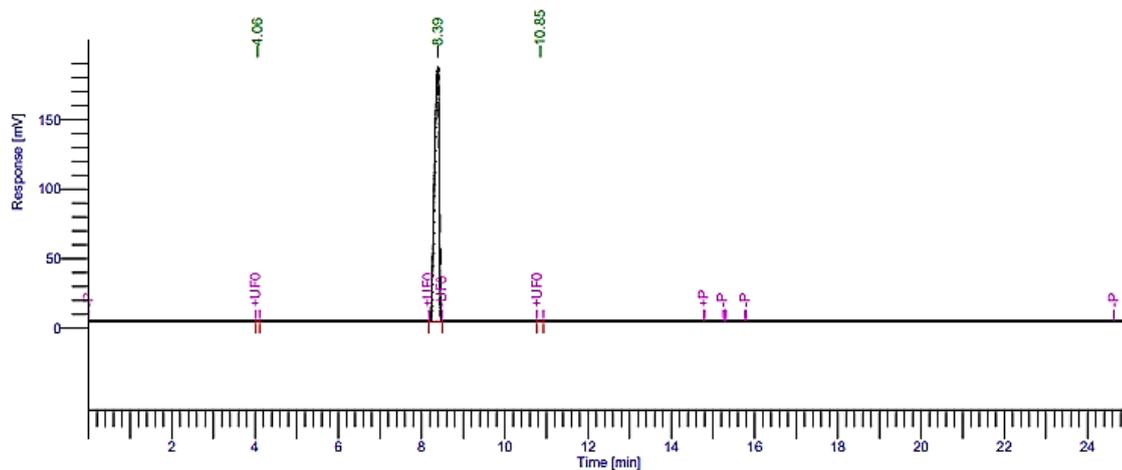
### METHOD: GC- FID conditions:

**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.



## GC Reports

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Area [%]
1		4.061	1379.40	836.32	0.10
2		8.392	1433088.83	182049.68	99.83
3		10.855	1036.95	411.61	0.07
			1435505.18	183297.62	100.00

### Missing Component Report

Component Expected Retention (Calibration File)

All components were found

**Purity by GC-FID: 99.83 %**

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## 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

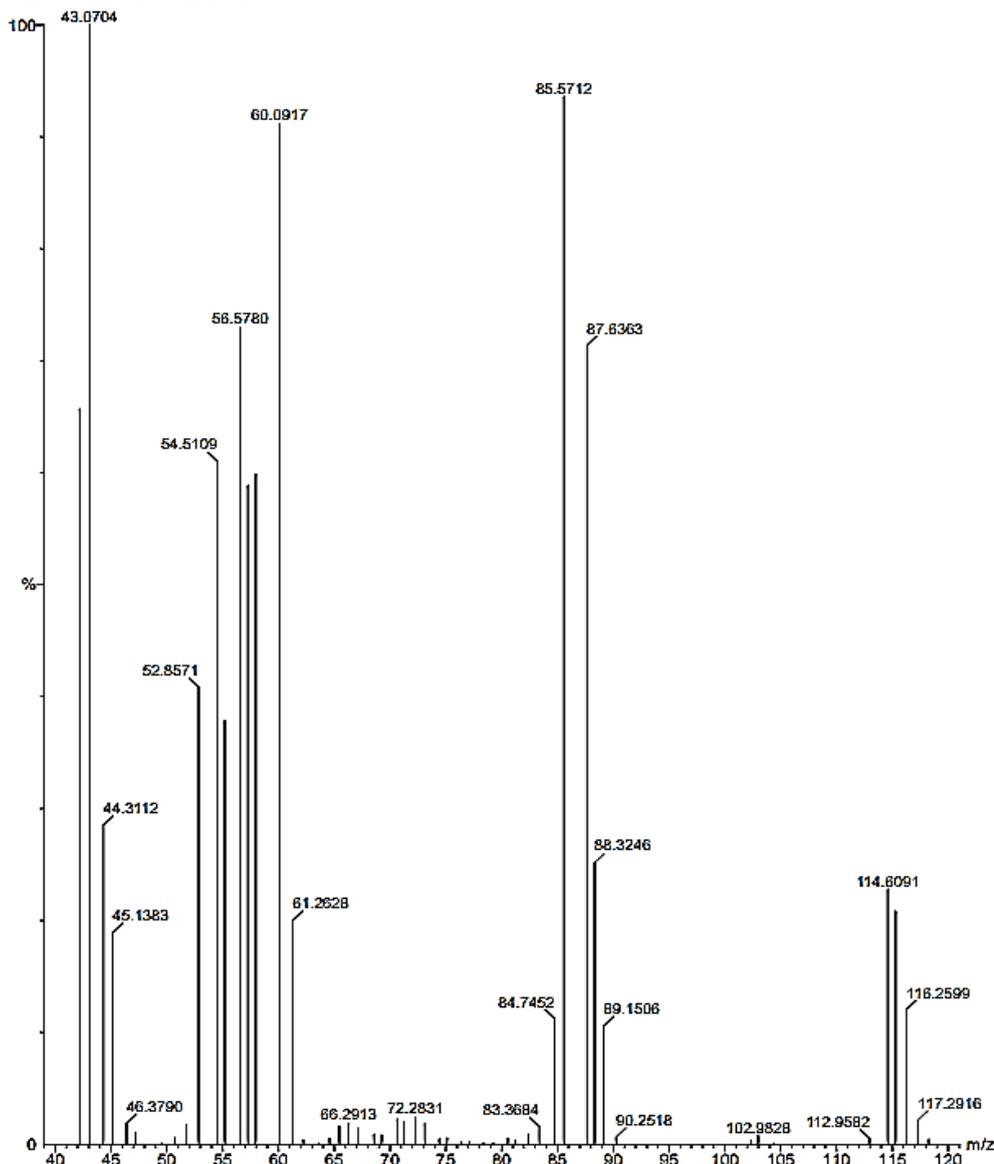
**Source energy:** 70eV

### Mass by GC-MS:

**Product Name:** Triethylsilane

**Product Code:** PSI213

AR22000457-TRIETHYLSILANE



**GC-MS Spectrum: Conforms to molecular mass**

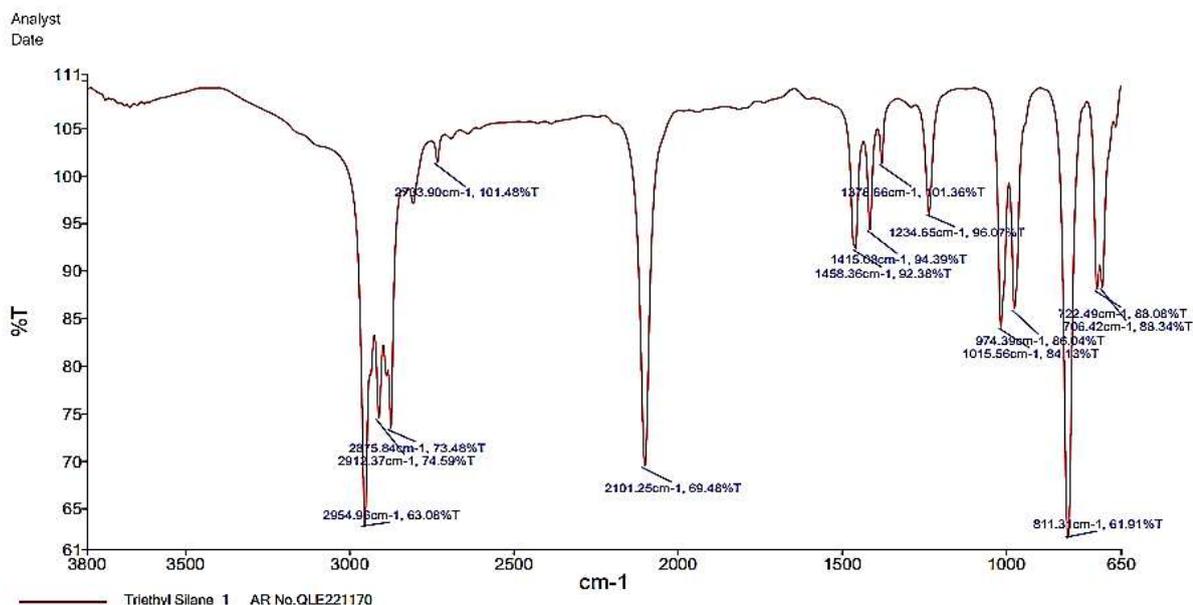
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**Infrared spectrum:**

**Product Name: Triethylsilane**

**Product Code: PSI213**



Source Spectra Results	
Spectrum Name	Number Of Peaks
Triethyl Silane_1	14

List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	2954.96	63.08
2	2912.37	74.59
3	2875.84	73.48
4	2733.90	101.48
5	2101.25	69.48
6	1458.36	92.38
7	1415.08	94.39
8	1378.66	101.36
9	1234.65	96.07
10	1015.56	84.13
11	974.39	86.04
12	811.31	61.91
13	722.49	88.08
14	706.42	88.34

**IR Spectra: Conforms to Structure**

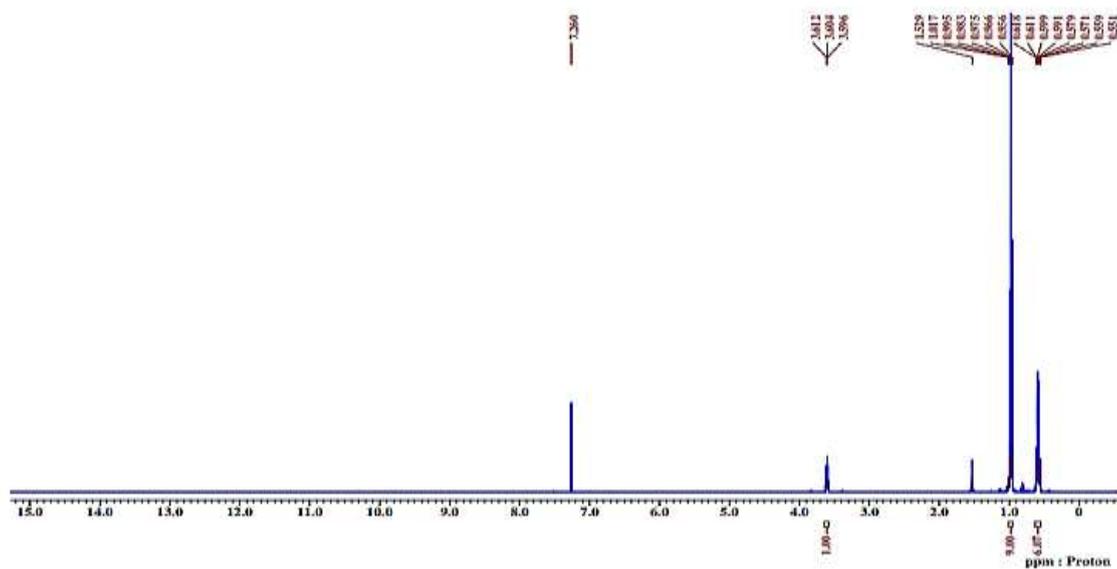
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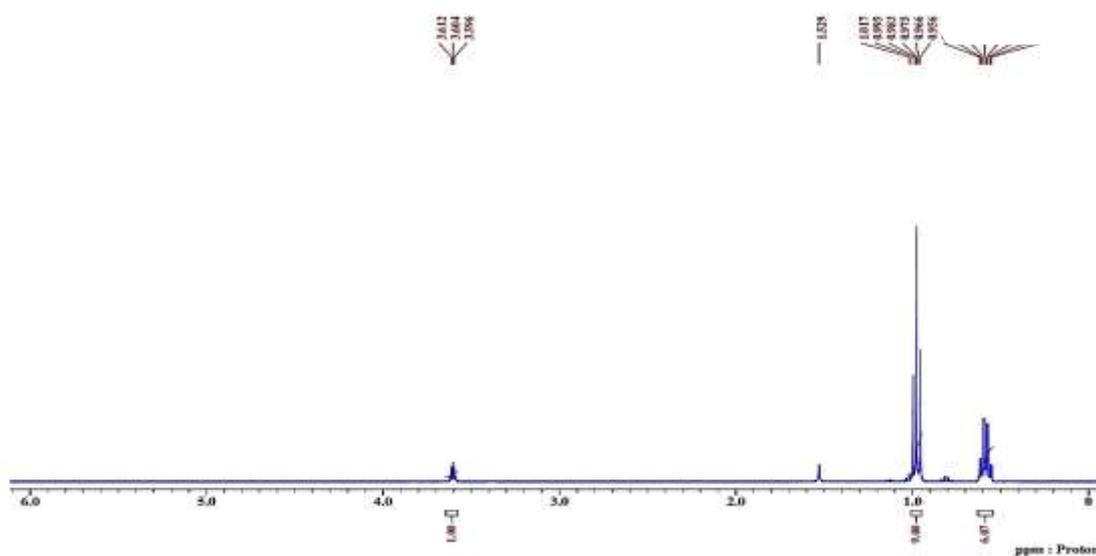
### <sup>1</sup>H NMR Spectrum:

Product Name: Triethylsilane

Product Code: PSI213



### <sup>1</sup>H NMR Spectrum: Expansion



**<sup>1</sup>H NMR Spectrum: Conforms to structure**

Approved By  
Head - Technical

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