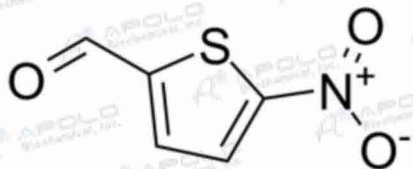


CERTIFICATE OF ANALYSIS

Product Name: 5-Nitrothiophene-2-carboxaldehyde

Chemical Structure:



Lot Number: 276493CSW013285

CAT Number: APL-4521339

CAS Registry Number: 4521-33-9

Manufacture Date: 04/2023

Expiry Date: 04/2025

Molecular Formula: C₅H₃NO₃S

Molecular Weight: 157.15

Storage: -20°C, away from moisture

Analysis Data

Item	Specification	Results
Appearance	Light brown to brown (Solid)	Conforms
¹ H NMR Spectrum	Consistent with the structure	Conforms
Purity (GC)	≥ 99.00 %	99.16 %
Water (KF)	≤ 1 %	0.54 %

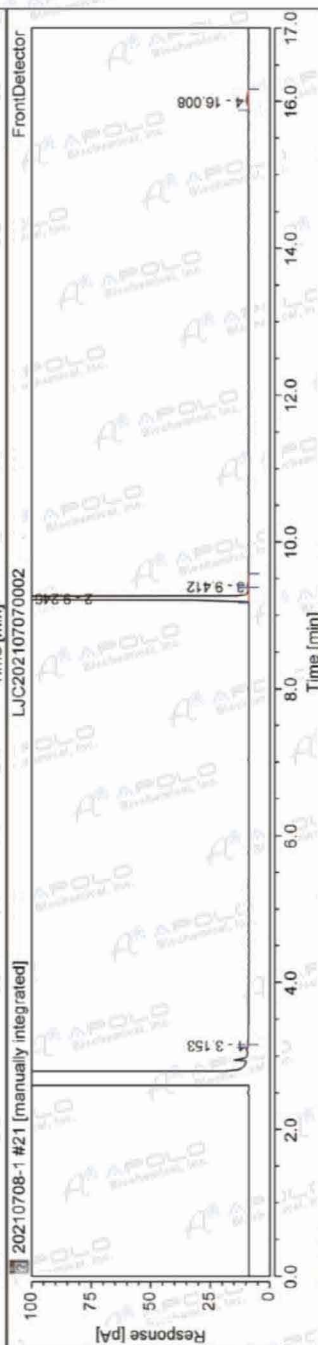
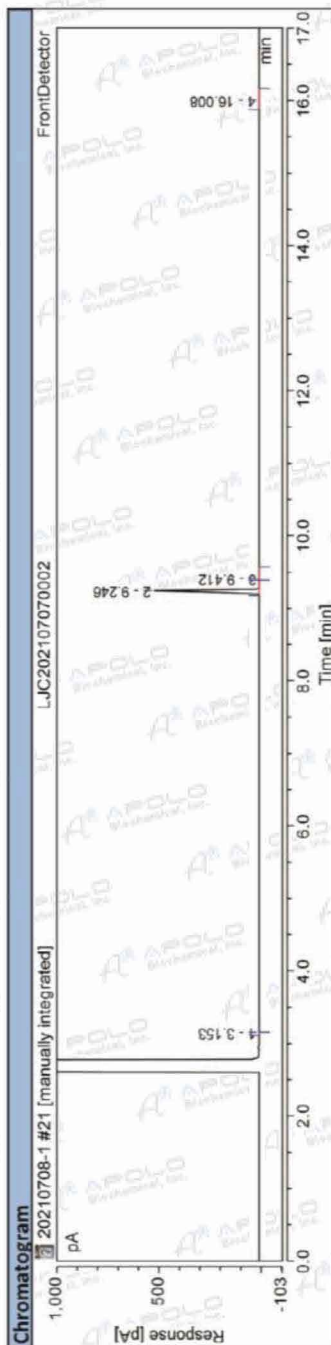
The foregoing is a copy of the Certificate of Analysis as provided by our supplier

Jennifer LaBrecque 05/2023
Quality Assurance Manager

Conclusion: The above product meets the specifications of APOLO

Chromatogram and Results

Injection Details	
Injection Name:	LJC202107070002
Vial Number:	68
Injection Type:	Unknown
Comment:	(BY ACN) HP-5 A-CP-68
Instrument Method:	GC-FQ
Processing Method:	Quantitative
Injection Date/Time:	09/Jul/21 01:08
seq.creation_operator	chd2232
procMeth.update_operator	chd2232
instMeth.creation_time	30/June/2020 10:13
chm.rawpath	chrom://thermo-svr2\QR_Data\1-RND\GC-07\Sequence\2021\202107\20210708-1.seq\271.smp\FrontDetector.channel\FrontDetector.chm
Run Time (min):	17.00
Injection Volume:	1.00
Channel:	FrontDetector
Wavelength:	n.a.
Bandwidth:	n.a.
Dilution Factor:	1.0000
seq.update_operator	chd2232
instMeth.creation_operator	yiq1768
rdi.update_operator	chd2232



Integration Results							
No.	Peak Name	Retention Time min	Area pA*s	Height pA	Relative Area %	Resolution (USP)	Tailing
1		3.153	0.0287	0.000	0.0031	n.a.	n.a.
2		9.246	905.1100	513.850	99.1675	n.a.	0.66
3		9.412	2.0468	0.547	0.2243	2.79	n.a.
4		16.008	5.5227	0.746	0.6051	47.28	1.19
Total:			912.7082	515.143	100.0000		
						876250	

