

Certificate of Analysis

N-nitrosodimethylamine (NDMA)

Product Number	PSR37118	CAS No.	62-75-9
Brand	PureSynth	Lot No.	N37118CS0923
Molecular Formula	C ₂ H ₆ N ₂ O	Date of Mfg.	Sep.2023
Molecular Weight	74.08 g/mol	Date of Exp.	August.2027

Test	Specification	Result
Description	Colorless to pale yellow liquid	Pale yellow liquid
Assay (GC)	≥ 99.0 %	99.928 %
Water (By KF)	NMT 0.3000 %	0.2120 %
Identification by ¹ H NMR	Conforms to structure	Conforms
Identification by MS	Conforms to molecular mass	Conforms
Identification by IR	Conforms to structure	Conforms

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

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

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Assay by GC

METHOD: G.C- FID conditions:

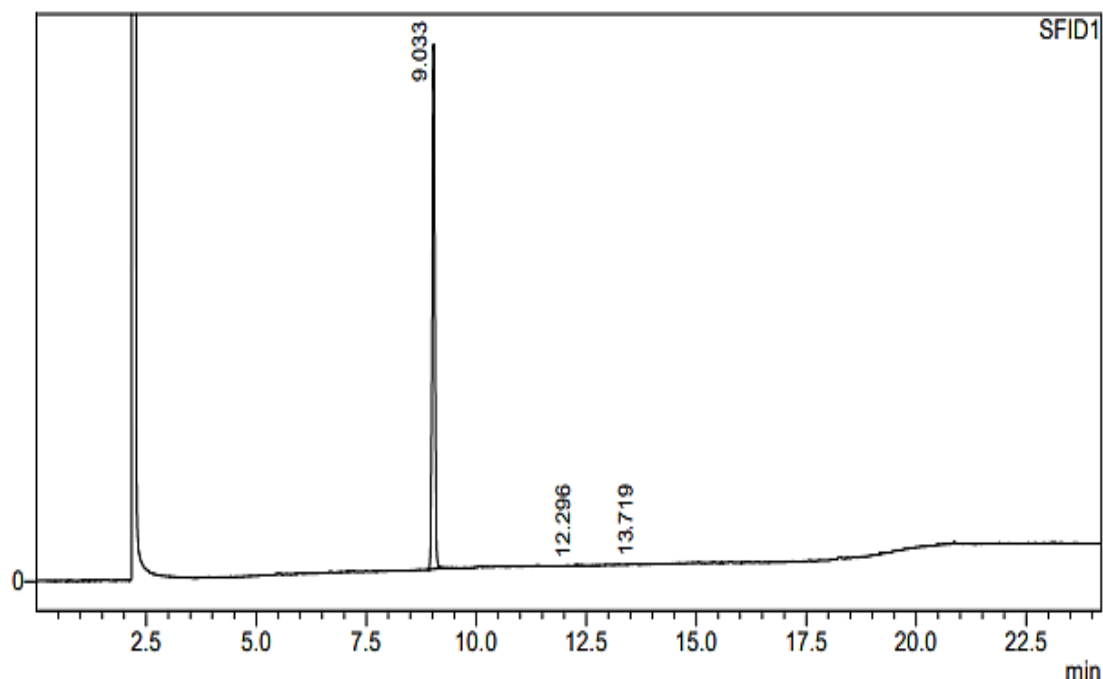
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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.



<Peak Table>

SFID1

Name	Ret. Time	Area	Area%
	9.033	734153	99.928
	12.296	239	0.033
	13.719	290	0.039
		734682	100.000

Purity by GC-FID: 99.928 %

IDENTIFICATION TESTS

MS Spectrum:

METHOD: 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 MS:

Product Name: N-nitrosodimethylamine

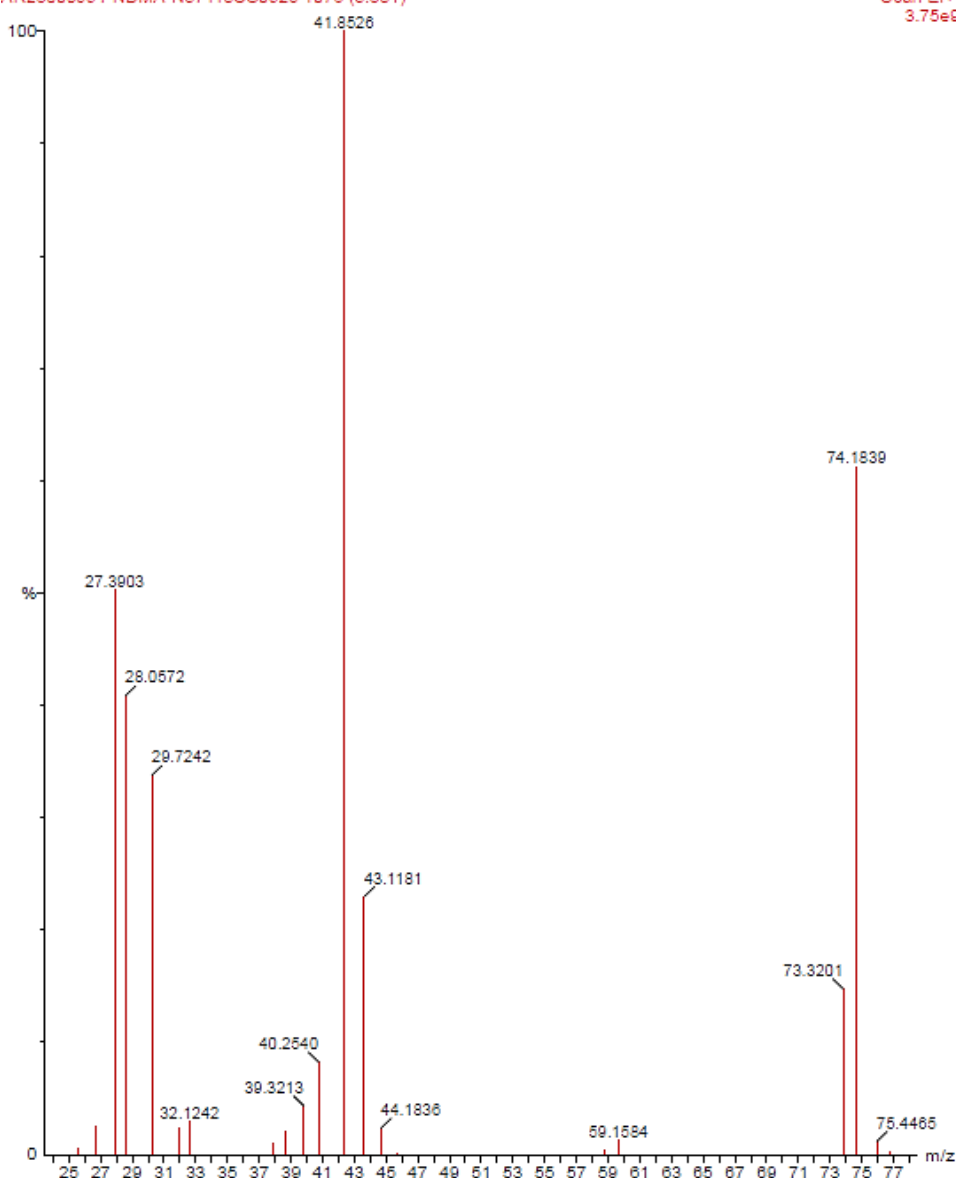
Product Code: PSR37118

NDMA-N37118CS0923

, 29-Nov-2023 + 17:15:04

AR23000594-NDMA-N37118CS0923 1076 (5.381)

Scan EI+
3.75e9



Identification by MS: Conforms to molecular mass

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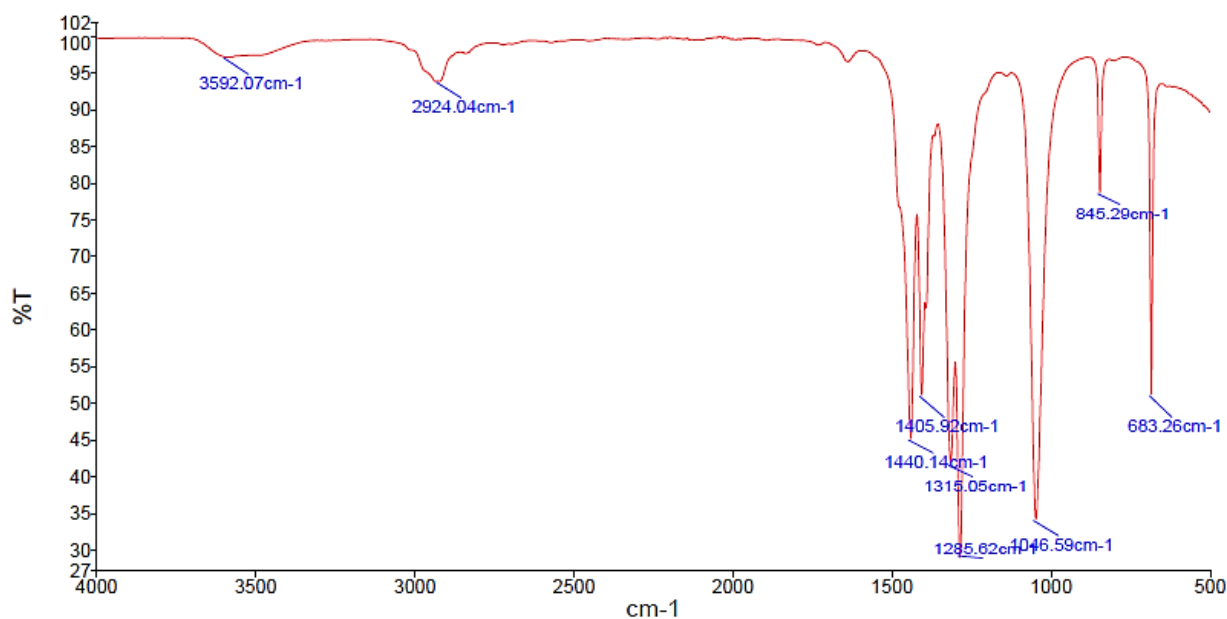
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Infrared spectrum:

Product Name: N-nitrosodimethylamine

Product Code: PSR37118

Analyst
Date



AR23000163-NDMA-N37118CS0923_1 Sample 002 By Analyst Date Wednesday, November 29 2023

Source Spectra Results		
Spectrum Name		Number Of Peaks
AR23000163-NDMA-N37118CS0923_1		9
List of Peak Area/Height		
Peak Number	X (cm-1)	Y (%T)
1	3592.07	97.27
2	2924.04	93.95
3	1440.14	45.21
4	1405.92	51.19
5	1315.05	41.78
6	1285.62	28.96
7	1046.59	34.22
8	845.29	78.74
9	683.26	51.26

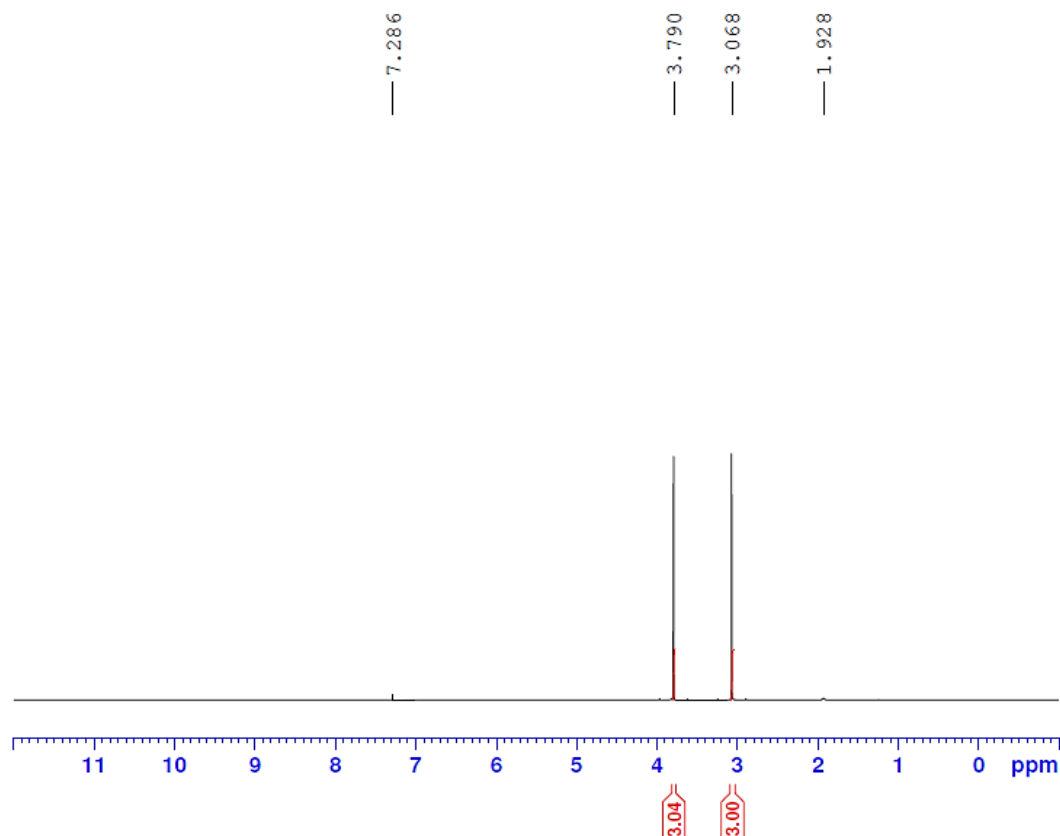
Identification by IR: Conforms to structure

¹H NMR Spectrum:

Product Name: N-nitrosodimethylamine

Product Code: PSR37118

NDMA
B.No-N37118CS0923
1H-NMR in CDCL₃



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR37118) = **0.2120 %**

Approved By
Head - Technical

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