

Certificate of Analysis

Methyl salicylate

PurCert Standard for GC

(Secondary Reference Standard)

| | | | |
|--------------------------|--|---------------------|----------------|
| Product Number | PSR41238 | CAS No. | 119-36-8 |
| Brand | PureSynth | Lot No. | M41238P1023 |
| Molecular Formula | C ₈ H ₈ O ₃ | Date of Mfg. | October.2023 |
| Molecular Weight | 152.15 g/mol | Date of Exp. | September.2027 |

| Test | Specification | Result |
|--------------------------------------|----------------------------|------------------|
| Description | Colorless liquid | Colorless liquid |
| Assay (GC-FID) | ≥ 99.5 % | 99.79 % |
| Water (By KF) | NMT 0.1000 % | 0.0647 % |
| Identification by ¹ H NMR | Conforms to structure | Conforms |
| Identification by GC-MS | Conforms to molecular mass | Conforms |
| Identification by IR | Conforms to structure | Conforms |

***Traceable to USP Reference Standard 1437450, Lot no: R107Q0**

Storage Condition: Store at 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:

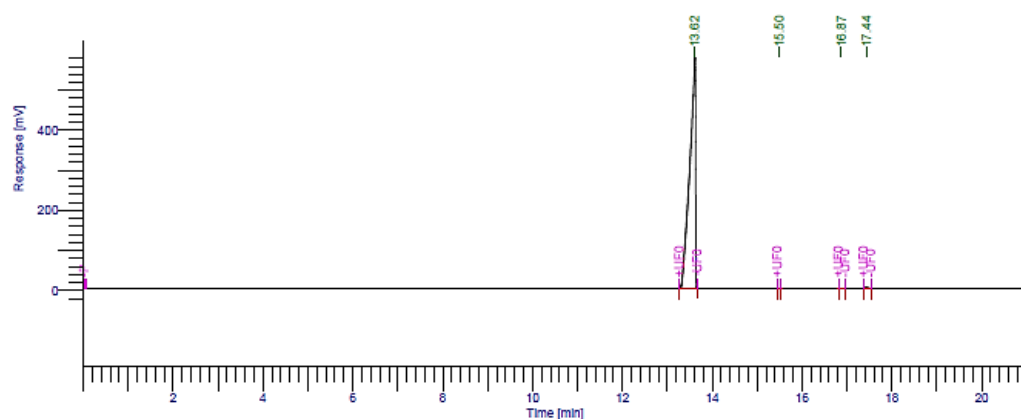
Column: Agilent Technologies DB-FFAP 30mx 0.530mm, 1.0micron

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.

| | |
|---|---|
| Software Version : 6.3.4.0700 | Date : 23-12-2023 16:10:07 |
| Operator : manager | Sample Name : METHYL SALICYLATE-M41238P1023 |
| Sample Number : 001 | |
| AutoSampler : BUILT-IN | Study : |
| Instrument Name : Clarus 690 | Rack/Vial : 0/19 |
| Instrument Serial # : None | Channel : A |
| Delay Time : 0.00 min | A/D mV Range : 1000 |
| Sampling Rate : 12.5000 pts/s | End Time : 21.00 min |
| Sample Volume : 1.000000 ul | |
| Sample Amount : 1.0000 | |
| Data Acquisition Time : 18-12-2023 12:40:05 | Area Reject : 0.000000 |
| | Dilution Factor : 1.00 |
| | Cycle : 1 |



GC Reports

| Peak # | Component Name | Time [min] | Area [uV*sec] | Height [uV] | Area [%] |
|--------|----------------|------------|---------------|-------------|----------|
| 1 | | 13.617 | 5127348.62 | 575199.53 | 99.79 |
| 2 | | 15.497 | 598.20 | 338.76 | 0.01 |
| 3 | | 16.875 | 1094.36 | 383.35 | 0.02 |
| 4 | | 17.439 | 8931.57 | 3594.25 | 0.17 |
| | | | 5137972.75 | 579515.90 | 100.00 |

Missing Component Report
Component Expected Retention (Calibration File)

All components were found

Purity by GC-FID: 99.79 %

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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

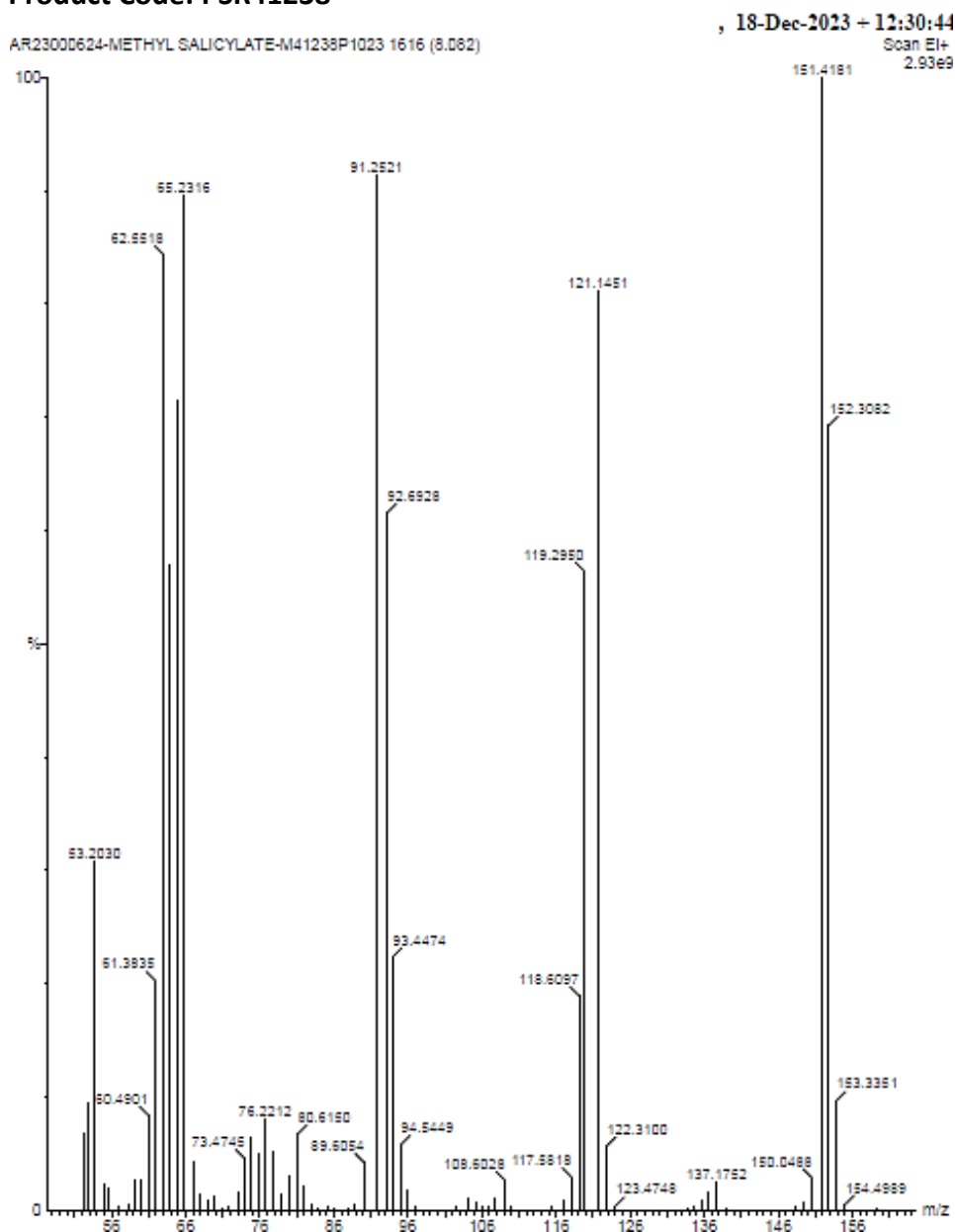
Inlet Temp.: 180°C, Diluent: Methanol

Source energy: 70eV

Mass by GC-MS:

Product Name: Methyl salicylate

Product Code: PSR41238



Identification by GC-MS: Conforms to molecular mass

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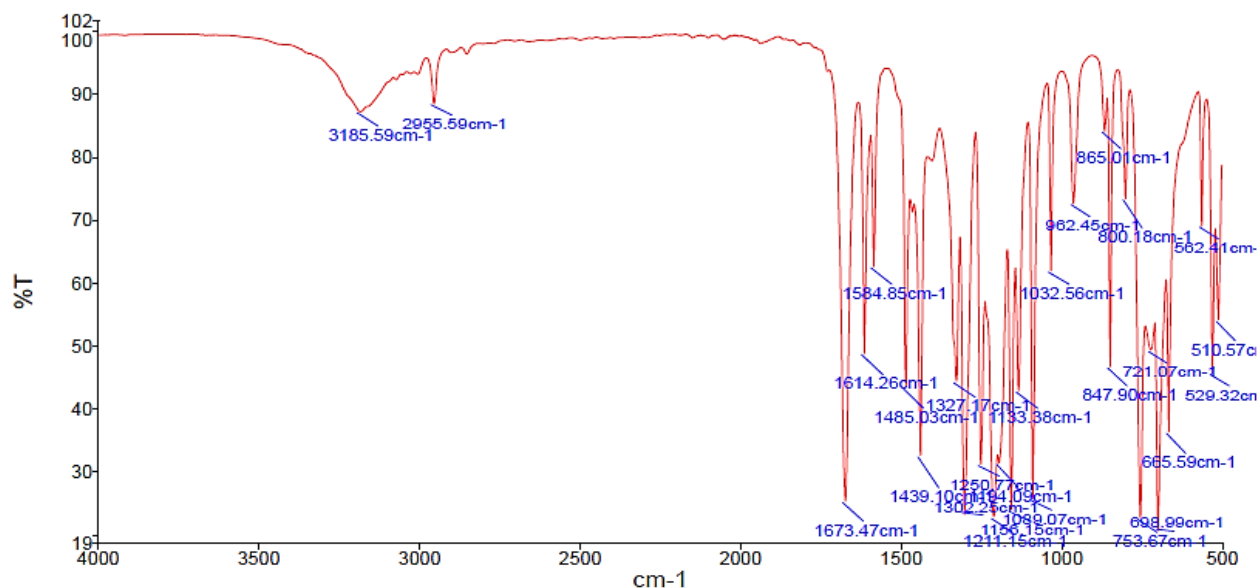
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Infrared spectrum:

Product Name: Methyl salicylate

Product Code: PSR41238

Analyst
Date



AR23000177-Methyl Salicylate-M41238P1023_1 Sample 004 By Analyst Date Monday, December 18 2023

| Source Spectra Results | | |
|--|-----------------|--------|
| Spectrum Name | Number Of Peaks | |
| AR23000177-Methyl Salicylate-M41238P1023_1 | 27 | |
| List of Peak Area/Height | | |
| Peak Number | X (cm-1) | Y (%T) |
| 1 | 3185.59 | 87.30 |
| 2 | 2955.59 | 88.56 |
| 3 | 1673.47 | 25.39 |
| 4 | 1614.26 | 48.87 |
| 5 | 1584.85 | 62.65 |
| 6 | 1485.03 | 43.51 |
| 7 | 1439.10 | 32.63 |
| 8 | 1327.17 | 44.41 |
| 9 | 1302.25 | 23.26 |
| 10 | 1250.77 | 31.25 |
| 11 | 1211.15 | 22.84 |
| 12 | 1194.09 | 31.42 |
| 13 | 1156.15 | 23.99 |
| 14 | 1133.38 | 42.92 |
| 15 | 1089.07 | 25.79 |
| 16 | 1032.56 | 61.97 |
| 17 | 962.45 | 72.67 |
| 18 | 865.01 | 84.22 |
| 19 | 847.90 | 46.75 |
| 20 | 800.18 | 73.47 |
| 21 | 753.67 | 22.70 |
| 22 | 721.07 | 49.39 |
| 23 | 698.99 | 20.64 |
| 24 | 665.59 | 36.38 |
| 25 | 562.41 | 69.11 |
| 26 | 529.32 | 45.71 |
| 27 | 510.57 | 54.21 |

Identification by IR: Conforms to structure

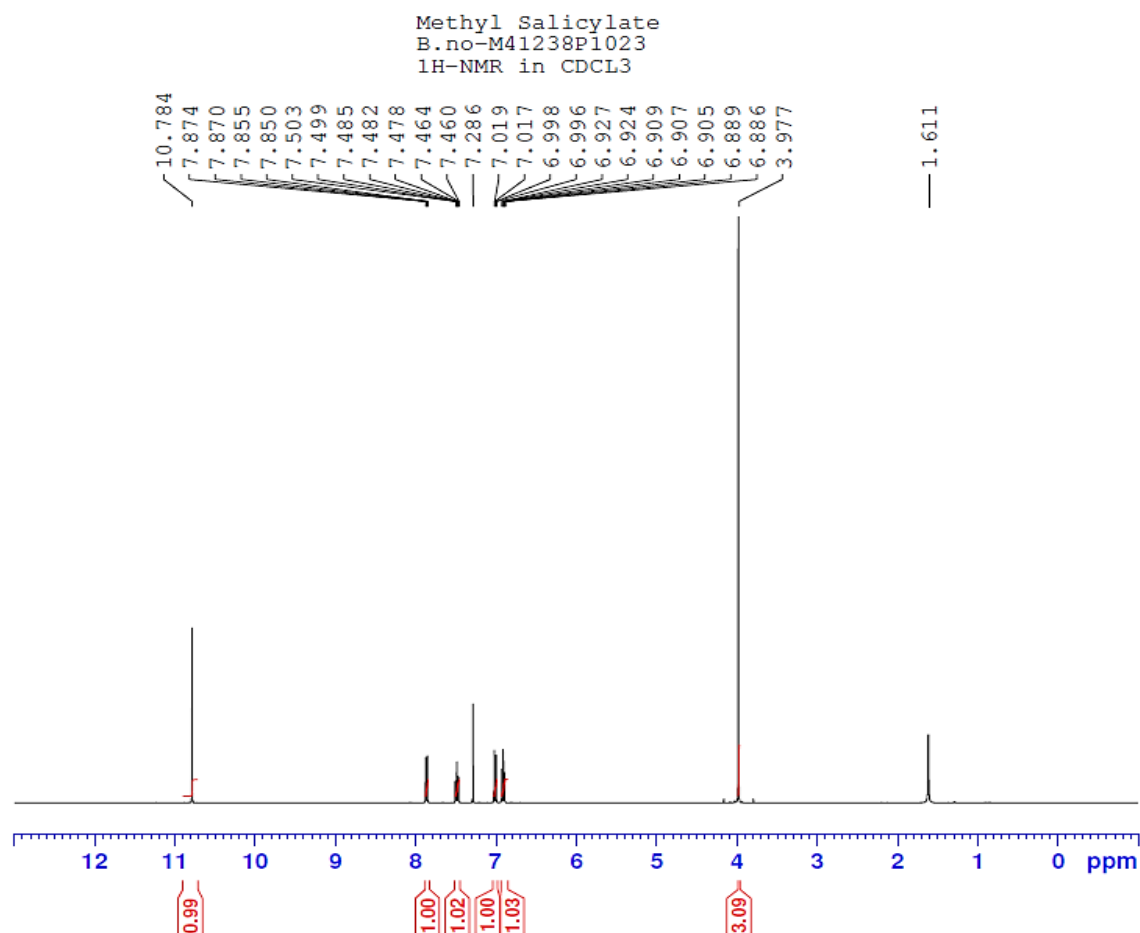
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¹H NMR Spectrum:

Product Name: Methyl salicylate

Product Code: PSR41238



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR41238) = **0.0647 %**

Approved By
Head - Technical

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