

Certificate of Analysis

Potassium hydrogen phthalate

PurCert Standard

| | | | |
|--------------------------|---|---------------------|---------------|
| Product Number | PSR39721 | CAS No. | 877-24-7 |
| Brand | PureSynth | Lot No. | P39721T0324 |
| Molecular Formula | C ₈ H ₅ KO ₄ | Date of Mfg. | March,2024 |
| Molecular Weight | 204.22 g/mol | Date of Exp. | February,2027 |

| Test | Specification | Result |
|--------------------------------------|----------------------------|-------------------------|
| Description | White crystal | White crystal |
| Assay (HPLC) | ≥ 99.5 % | 99.99 % |
| Water (By KF) | NMT 1.000 % | 0.651 % |
| Density | - | 1.571 g/cm ³ |
| Identification by ¹ H NMR | Conforms to structure | Conforms |
| Identification by MS | Conforms to molecular mass | Conforms |
| Identification by IR | Conforms to structure | Conforms |

***Traceable to Internal Reference Standard**

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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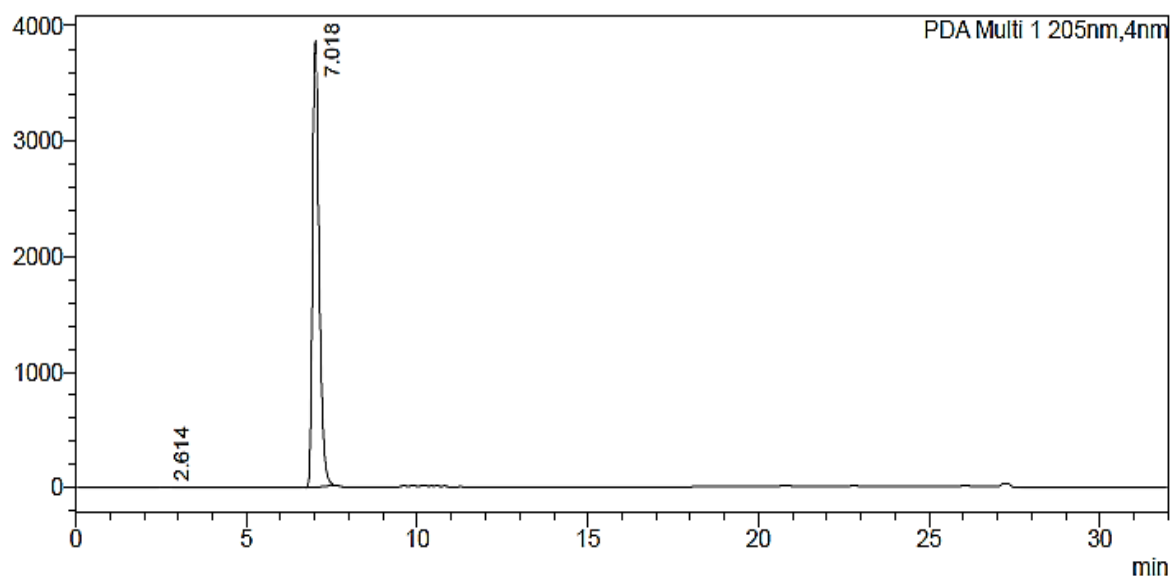
Worldwide Helpline No. 1800-120-1234-34 , Email: info@pure-synth.com , Website: www.pure-synth.com

Assay by HPLC

Sample Name : Potassium hydrogen phthalate-P39721T0324
Tray# : 1
Vial# : 38
Injection Volume : 5 uL
Data Filename : AR24000389-Potassium hydrogen phthalate-P39721T0324.lcd
Method Filename : Amicarbazone_shmpk_020.lcm
Batch Filename : 23_05_2024_01.lcb
Date Acquired : 5/23/2024 6:01:20 PM
Date Processed : 5/24/2024 10:00:45 AM

<Chromatogram>

mAU



<Peak Table>

PDA Ch1 205nm

| Peak# | Ret. Time | Area | Height | Area% |
|-------|-----------|----------|---------|---------|
| 1 | 2.614 | 2011 | 365 | 0.004 |
| 2 | 7.018 | 52644679 | 3860205 | 99.996 |
| Total | | 52646690 | 3860570 | 100.000 |

Purity by HPLC: 99.99 %

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IDENTIFICATION TESTS

MS Spectrum:

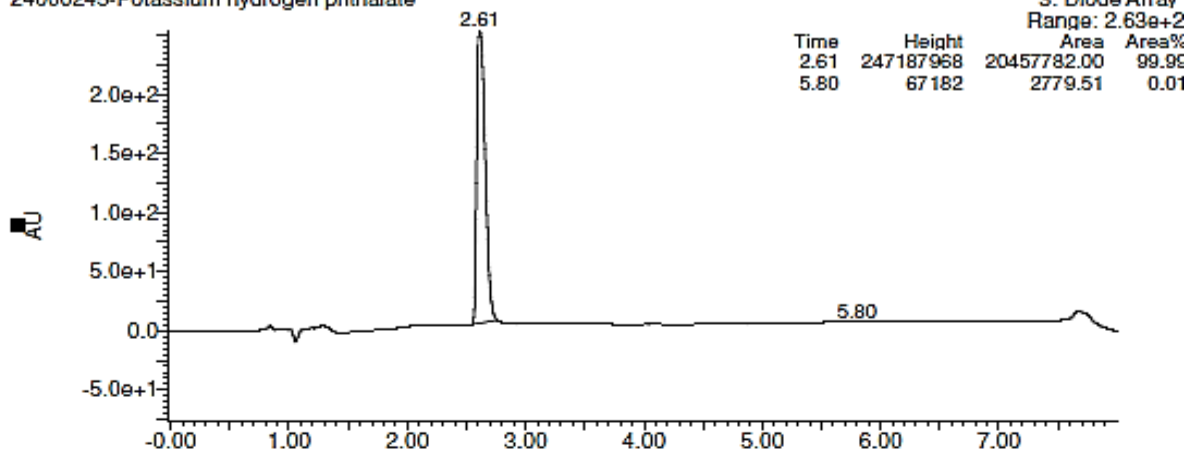
Mass by MS:

Product Name: Potassium hydrogen phthalate

Product Code: PSR39721

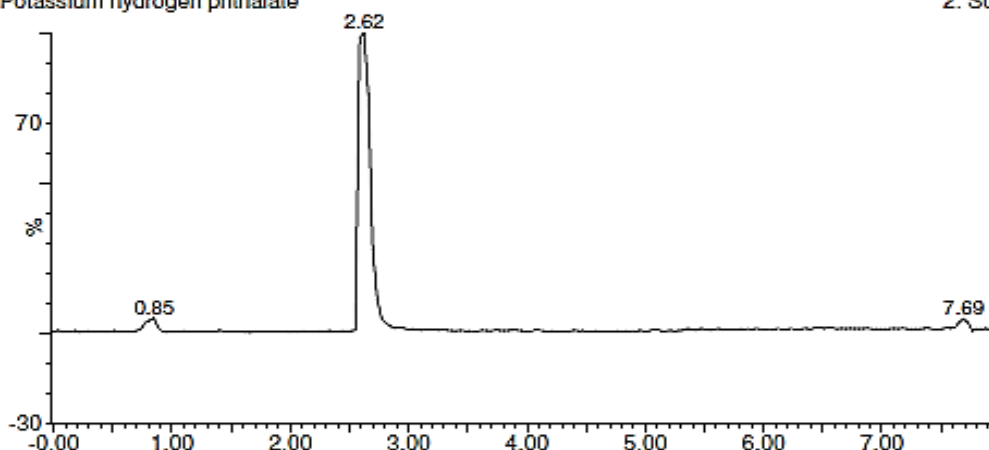
24000245-Potassium hydrogen phthalate

3: Diode Array
Range: 2.63e+2



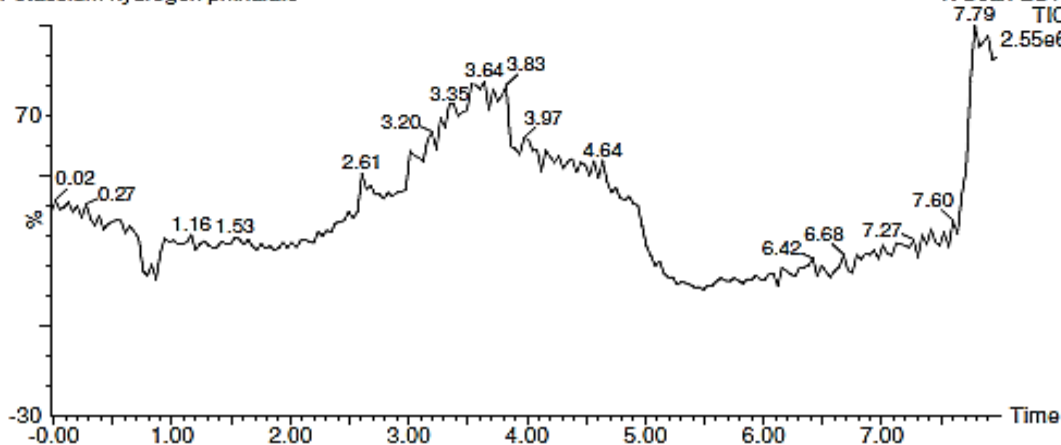
24000245-Potassium hydrogen phthalate

2: Scan ES-TIC
3.68e6



24000245-Potassium hydrogen phthalate

1: Scan ES+
7.79 TIC
2.55e6



Identification by MS: Conforms to molecular mass

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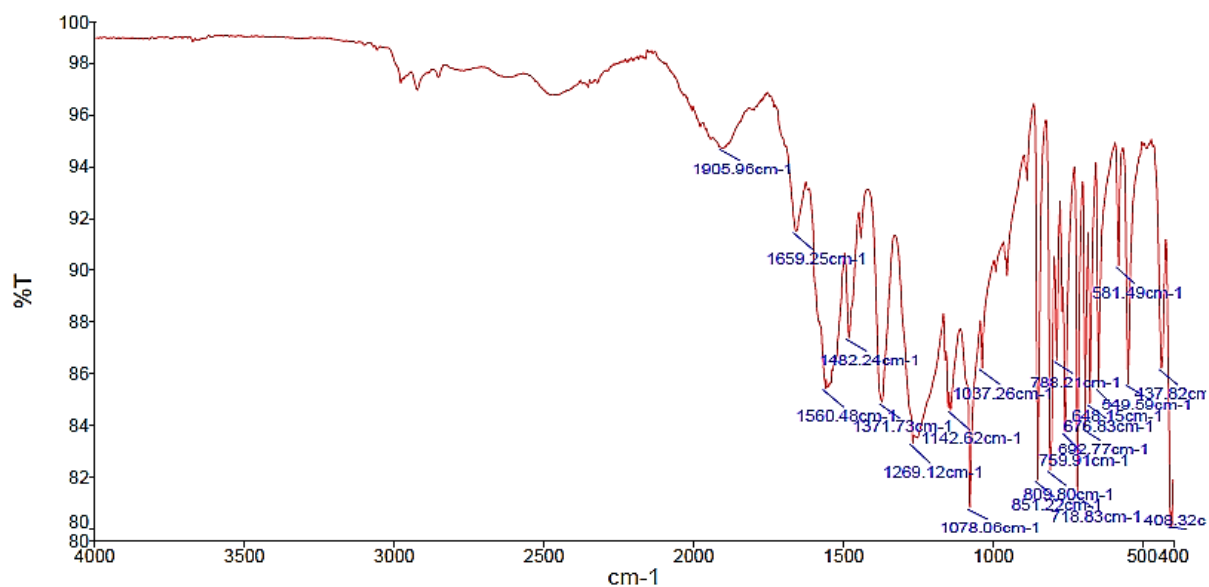
Infrared spectrum:

Product Name: Potassium hydrogen phthalate

Product Code: PSR39721

Analyst

Date



AR24000306-POTASSIUMHYDROGENPHTHALATE-P39721T0324_1 Sample 005 By Analyst Date Thursday, May 23 2024

| Source Spectra Results | | |
|---|-----------------|--------|
| Spectrum Name | Number Of Peaks | |
| AR24000306-POTASSIUMHYDROGENPHTHALATE-P39721T0324_1 | 21 | |
| List of Peak Area/Height | | |
| Peak Number | X (cm-1) | Y (%T) |
| 1 | 1905.96 | 94.73 |
| 2 | 1659.25 | 91.50 |
| 3 | 1560.48 | 85.45 |
| 4 | 1482.24 | 87.40 |
| 5 | 1371.73 | 84.89 |
| 6 | 1269.12 | 83.33 |
| 7 | 1142.62 | 84.60 |
| 8 | 1078.06 | 80.82 |
| 9 | 1037.26 | 86.22 |
| 10 | 851.22 | 81.91 |
| 11 | 809.80 | 82.28 |
| 12 | 788.21 | 86.52 |
| 13 | 759.91 | 83.76 |
| 14 | 718.83 | 81.40 |
| 15 | 692.77 | 83.91 |
| 16 | 676.83 | 84.85 |
| 17 | 648.15 | 85.47 |
| 18 | 581.49 | 90.18 |
| 19 | 549.59 | 85.61 |
| 20 | 437.82 | 86.22 |
| 21 | 408.32 | 80.01 |

Identification by IR: Conforms to structure

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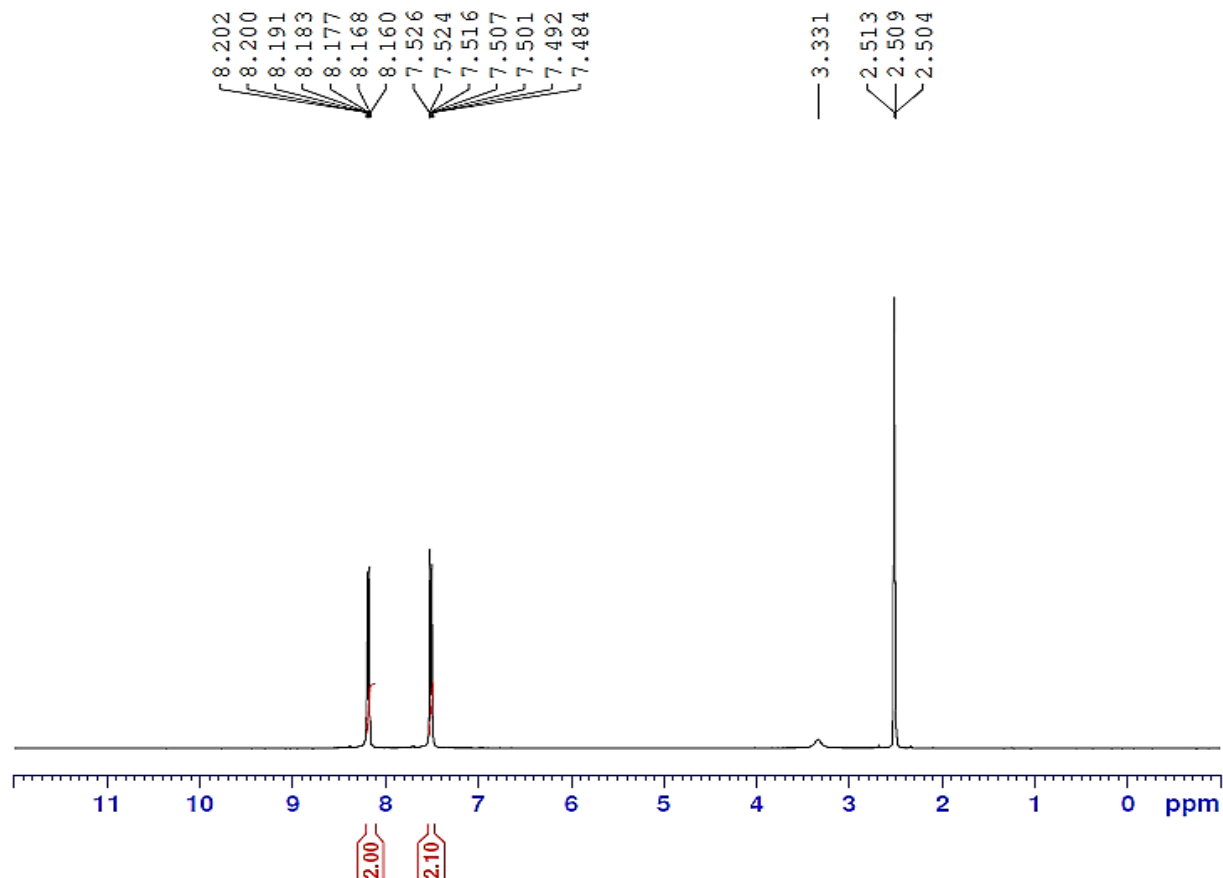
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¹H NMR Spectrum:

Product Name: Potassium hydrogen phthalate

Product Code: PSR39721

Potassium hydrogen phthalate
B.NO-P39721T0324
1H-NMR in DMSO



Identification by ¹H NMR: Conforms to structure

Maximum limits of impurities

WATER DETERMINATION

Method: Karl Fisher titration

Water Content (PSR39721) = **0.651 %**

Approved By
Head - Technical

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