



No.:

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Date:



Central Instrumentation Laboratory

Sample Analysis Report

الرقم:

التاريخ:

الموافق:

Analysis requested by: Natural Frankincense Products Company

Type of the sample: Essential oil analysis in frankincense oil sample (Najdi)

Date of sample received: 3 October 2023

Date of sample reported: 25 October 2023

Technique used: GC/MS

**Results:**

Table1: Chemical Analysis of Essential Oils in frankincense samples by GC/MS

| #  | Compound Name                            | K.I  | Rt (minutes) | %      |
|----|--|------|--------------|--------|
| 1  | 5,5-Dimethyl-1-vinylbicyclo[2.1.1]hexane | 920  | 7.43         | 0.335  |
| 2  | alpha.-Thujene                           | 929  | 7.69         | 0.451  |
| 3  | alpha.-Pinene                            | 937  | 7.92         | 74.585 |
| 4  | Camphene                                 | 948  | 8.36         | 3.680  |
| 5  | Thuja-2,4(10)-diene                      | 954  | 8.54         | 0.383  |
| 6  | Cosmene                                  | 966  | 9.08         | 0.046  |
| 7  | Sabinene                                 | 972  | 9.18         | 1.328  |
| 8  | beta.-Pinene                             | 990  | 9.27         | 3.178  |
| 9  | beta.-Myrcene                            | 993  | 9.79         | 1.161  |
| 10 | alpha.-Phellandrene                      | 1003 | 10.22        | 2.708  |
| 11 | 3-Carene                                 | 1009 | 10.41        | 4.001  |
| 12 | beta.-Cymene                             | 1017 | 10.91        | 0.731  |



26/10/2023

Sultan Qaboos University

COLLEGE OF AGRICULTURAL AND  
MARINE SCIENCES

OFFICE OF THE DEAN



جامعة السلطان قابوس

كلية العلوم الزراعية والبحرية

مكتب العميد

No.:

Date:

Date:

رؤية عمان 2040  
لتقدم بثقة  
Moving Forward  
with Confidence

الرقم:

التاريخ:

الموافق:

| #  | Compound Name    | K.I  | Rt (minutes) | %     |
|----|------------------|------|--------------|-------|
| 13 | Limonene         | 1018 | 11.05        | 3.729 |
| 14 | Eucalyptol       | 1030 | 11.12        | 0.328 |
| 15 | trans-Ocimene    | 1029 | 11.40        | 0.843 |
| 16 | beta.-Ocimene    | 1032 | 11.76        | 0.612 |
| 17 | Camphenol        | 1109 | 14.47        | 0.232 |
| 18 | Levoverbenone    | 1204 | 17.35        | 0.073 |
| 19 | Bornyl acetate   | 1282 | 19.93        | 0.206 |
| 20 | beta.-Bourbonene | 1381 | 23.14        | 0.625 |
| 21 | beta.-Elemene    | 1389 | 23.37        | 0.501 |
| 22 | Caryophyllene    | 1414 | 24.22        | 0.264 |

Analysis done by:

Eng. Ahmed Said Al-Ghafri

Chromatography specialist, CIL



Analysis approved by:

Dr. Jamal Nasser Al-Sabahi

In-charge, CIL