



NHR ORGANIC OILS  
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## Certificate of Analysis & Gas Chromatography

### Organic Galbanum Essential Oil

(*Ferula galbaniflua*)

|                       |                                 |
|-----------------------|---------------------------------|
| Botanical name :      | <i>Ferula galbaniflua</i> Boiss |
| Commercial name :     | Organic Galbanum                |
| Batch number :        | 281123-2                        |
| Geographical origin : | Iran                            |

#### **Physical and chemical data :**

|                          | Standards                 | Results of analysis |
|--------------------------|---------------------------|---------------------|
| Appearance               | Liquid                    | Conform             |
| Colour                   | Colourless to pale yellow | Conform             |
| Odour                    | Balsamic, turpentine-like | Conform             |
| Specific gravity at 20°C | 0.830 to 0.890            | 0.8673              |
| Refractive index at 20°C | 1.474 to 1.485            | 1.4797              |
| Optical rotation at 20°C | +7° to +20°               | +15.88°             |
| Flash point              | +40°C to +50°C            |                     |

#### **Table of components :**

| Components                                                 | Contents      |
|------------------------------------------------------------|---------------|
| Alpha-thujene                                              | 1.03%         |
| Alpha-pinene                                               | 9.08%         |
| Sabinene                                                   | 0.40%         |
| Beta-pinene                                                | 63.57%        |
| Myrcene                                                    | 2.69%         |
| Delta-3-carene                                             | 5.42%         |
| Cymene                                                     | 0.98%         |
| Limonene                                                   | 1.77%         |
| Trans-pinocarveol                                          | 1.31%         |
| Pinocarpone                                                | 0.86%         |
| Myrtenal                                                   | 0.41%         |
| Myrtenol                                                   | 1.25%         |
| Fenchyl Acetate                                            | 2.19%         |
| Carvacrol Methyl Ether                                     | 0.90%         |
| Bicyclo[3.1.1]hept-2-ene-2-methanol,6,6-dimethyl-          | 1.20%         |
| Terpinyl Acetate                                           | 1.13%         |
| Alpha-amorphene                                            | 0.64%         |
| 10s,11s-Himachala-3(12),4-diene                            | 0.94%         |
| Gamma-cadinene                                             | 1.12%         |
| Guaiol                                                     | 0.78%         |
| Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-methyl-9-methylene- | 0.70%         |
| Aromadendrene                                              | 1.43%         |
| <b>TOTAL</b>                                               | <b>99.80%</b> |