

## ANALYSIS

**Product Name :** **SIBERIAN FIR OIL**  
**Aceite esencial de Abeto Siberia**

**Botanical name :** Abies sibirica

**Batch number :** JAN20

**Origin :** Rusia

### Analysis features :

Agilent GC System 7890A - Column : HP INNOWAX polaire : 60 m ´ 0,25 mm ´ 0,5 µm

Temperature program : 8 min to 95 °C – 4 °C/min till 190 °C - 29 min to 190°C

Carrier gas H2 : 30 psis/FID. Injector : split. Sample : 0.1 µl without dilution

The compounds of the essential oils are identified by retention times.

% Are calculated from the peak areas given by the GC / FID without the use of a correction factor.

### Physical characteristics:

|                            |       |
|----------------------------|-------|
| Density at 20°C            | 0.901 |
| Refractive index at 20°C   | 1.470 |
| Optical rotation at a 20°C | -34.4 |

**Production date:**

|         |      |
|---------|------|
| January | 2020 |
|---------|------|

**Best before end:**

|         |      |
|---------|------|
| January | 2024 |
|---------|------|

## GC Results

| COMPONENTS                  | %            | Standar   | Pharma |
|-----------------------------|--------------|-----------|--------|
| a-PINENE                    | 12.91        | 10 - 22   |        |
| a-FENCHENE                  | 0.03         |           |        |
| CAMPHENE                    | 23.24        | 15 - 26   |        |
| b-PINENE                    | 2.25         | 1 - 3.5   |        |
| SABINENE                    | 0.02         |           |        |
| d-3-CARENE + b-MYRCENE      | 13.32        | 9 - 15    |        |
| a-PHELLANDRENE              | 0.21         |           |        |
| a-TERPINENE                 | 0.16         |           |        |
| LIMONENE                    | 4.90         | 4 - 10    |        |
| 1,8-CINEOL + b-PHELLANDRENE | 3.74         | 1.5 - 5   |        |
| g-TERPINENE                 | 0.18         |           |        |
| p-CYMENE                    | 0.07         |           |        |
| TERPINOLENE                 | 1.30         |           |        |
| BORNYL ACETATE              | 26.07        | 20 - 35   |        |
| LONGIFOLENE                 | 0.08         |           |        |
| b-CARYOPHYLLENE             | 1.11         | 0.5 - 2   |        |
| a-HUMULENE                  | 0.63         | 0.3 - 0.9 |        |
| a-TERPINEOL                 | 0.18         |           |        |
| BORNEOL                     | 1.85         | 1 - 3     |        |
| <b>TOTAL</b>                | <b>92.25</b> |           |        |