

BIORUŽA, s. r. o.

Laborecká 1, 010 01 Žilina, IČO: 52234070, IČ DPH: SK2120953802, tel .: 00421 905 864 140, info@bioruza.sk

CERTIFICATE OF ANALYSIS Private Laboratory

SUBSTANCE IDENTIFICATION

Name: SILVER FIR (Abies Alba)
Productcode: 4168
INCI: Abies Alba Leaf Oil
CASNr.: 90028-76-5
EINECSNr.: 289-870-2
Batch: CO 01/2024
Productiondate: 06/2024
Expirationdate: 06/2029
Specification: Internal

GENERAL CHARACTERISTICS

Type of product: 100% Natural essential oil
Quality: Conventional product
Botanical name: Abies Alba Mill.
Type of production: Water steam distillation
Plant part: Leaves
Country of origin: Bulgaria

SENSORICAL CHARACTERISTICS

| Parameter | Specification requirements | Result |
|------------|-------------------------------------|----------|
| Appearance | Colorless to slightly yellow liquid | Complies |
| Odor | Characteristic | Complies |

PHYSICAL CHARACTERISTICS

| Parameter | Specification requirements | Result |
|------------------------|----------------------------|--------|
| Specific density(20°C) | 0.860-0.900 | 0.869 |
| Refractive index(20°C) | 1.470-1.485 | 1.473 |
| Optical rotation(20°C) | -50to-35° | -38.3° |

PURITY

| Parameter | Parameter | Result |
|---|-------------|----------|
| Fatty acids and resinified essential oils | Not present | Complies |
| Additives | Not present | Complies |

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CHEMICAL CHARACTERISTICS (GC-FID)

| Parameter | Specification requirements | Result |
|-----------------------|----------------------------|--------|
| α Pinene | 30-40% | 31.4% |
| Camphene | 10-20% | 11.8% |
| β Pinene | 15-25% | 19.8% |
| Limonene | 12-24% | 18.0% |
| BornylAcetate | 1-5% | 2.3% |
| β Caryophyllene | 2-6% | 4.7% |

PACKAGING AND STORAGE

| Parameter | Requirements |
|--------------------|--|
| Standard packaging | ALU, HDPE |
| Storage | In tight closed and full containers, at cool, dry and well ventilated place below 25°C |
| Reanalysis | When opened for more than 24 months quality should be checked before use. |

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