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## Certificate of Analysis & Gas Chromatography Organic Fir Grand Essential Oil (*Abies grandis*)

Batch Number: 250920-10  
Origin: France

### 1. IDENTIFICATION DE LA SUBSTANCE / IDENTIFICATION OF THE SUBSTANCE

**Nom du produit / Product name:** Huile essentielle de SAPIN GRANDIS FRANCE BIO / Essential oil of ORGANIC FIR GRAND FRANCE  
**Législation :** Substance 100% pure et naturelle / Matter 100% pure and natural  
**Nom botanique/Botanical name :** *Abies grandis* Lindl

### 2. CARACTERISTIQUES ORGANOLEPTIQUES ET PHYSIQUES/PHYSICAL AND ORGANOLEPTIC CHARACTERISTICS

CRITÈRES / CRITERIA	SPECIFICATIONS	CONFORMITÉ / CONFORMITY
Densité à 20°C / Density at 20°C	0.8920	Conforme / Compliant
Indice de réfraction à 20 °C /	1.47625	Conforme / Compliant
Pouvoir rotatoire à 20 °C / Optical rotation at 20°C	-33.29	Conforme / Compliant

### 3. ANALYSES CHROMATOGRAPHIQUES / MICROBIOLOGICAL CHARACTERISTIC

CONSTITUANTS / CONSTITUENTS	%
Borneol	0.540
Alpha terpineol	0.357
Acetate de bornyle	16.208
Acetate de citronellyle	1.592
Acetate de geranyle	0.250
Alpha copaene	0.758

Beta cubebene	0.417
Beta elemene	0.127
Beta caryophyllene	0.424
Cis-muurola-3,5-diene	0.660
Trans cadina-1(6),4-diene	0.932
Gamma muurolene	0.147
Trans muurola-4(14),5-diene	0.980
Alpha-muurolene	1.131
Gamma-cadinene	0.190
Delta-cadinene	3.792
Cis-calamenene	0.442
Trans-cadina-1,4-diene	0.374
1-epi-cubenol	0.346
Alpha-muurodol	0.190

Resultats transmis par le laboratoire de notre fournisseur/ [results from our provider's laboratory](#)