# DOUGLAS FIR OIL 

 Pseudotsuga menziesif, TECHNICAL DATA SHEET
## DESCRIPTION:

Douglas Fir is an evergreen conifer species belonging to the Larch family, with a botanical name of Pseudotsuga menziesii . Our Douglas-fir essential oil is obtained through the steam distillation of Pseudotsuga menziesii grown and harvested in New Zealand, where our exclusive supply partner annually declares compliance to Khush Ingredients' Sustainability and Ethical policy.
The optimal harvest period is highlighted in green below.


| JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## CHEMISTRY:

Appearance: Mobile liquid
Odour: Citrus, pine, woodsy, sweet
Colour: Colourless to pale yellow
Specific Gravity @ 20 ${ }^{\circ}$ C: : $0.847-0.887$
Refractive Index @ 20 ${ }^{\circ}$ C: 1.470 to 1.480
Optical Rotation @ 20 ${ }^{\circ}$ C: $-36^{\circ}$ to $-4^{\circ}$
Flash Point: $46^{\circ} \mathrm{C}$
COMPONENT PROFILE:

| Component | Typical (by GC) |
| :--- | :---: |
| Alpha Pinene | 8 to $18 \%$ |
| Beta Pinene | 17 to $40 \%$ |
| Sabinene | 5 to $16 \%$ |
| Terpinolene | 9 to $17 \%$ |
| Delta-3-carene | 2 to $13 \%$ |
| Limonene | tr to $5 \%$ |
| Terpinen-4-ol | tr to $7 \%$ |
| Gamma Terpinene | tr to $5 \%$ |
| Alpha-Terpinene | tr to $5 \%$ |
| Citronellyl acetate | tr to $3 \%$ |
| Alpha-Thujene | tr to $2 \%$ |
| Beta Myrcene | tr to $2 \%$ |
| para-Cymene | tr to $1.5 \%$ |

## STANDARDS / TESTS:

| ISO 16128 standard |  |
| :---: | :---: |
| Pesticide test* |  |
| Heavy metals test* |  |

*available upon request

## FURTHER DOCUMENTS:

For more information on Himalayan Cedarwood oil, please refer to:
Safety Data Sheet - For hazards, emergencies, toxicology, transport, product handling information.
Ingredient Statement - for IFRA allergen statement, INCI name and product declarations. Certificates of Analysis - with batch-specific physical, organoleptic and GC analysis.

## CODES:

CAS Number: 97926-19-7 / 91771-64-1
EC Number: 308-234-8 / 294-957-3
HS Tariff Code: 3301294900

