

Certification of analysis

1. PRODUCT IDENTIFICATION AND COMPOSITION

1.1 Product Name: Cedarwood Atlas oil

1.2 Botanical Name: Cedrus atlantica

1.3 Batch no./Expiry date: 237331

TEST SPECIFICATION RESULT

2. PHYSICAL AND CHEMICAL PROPERTIES

2.1 Appearance: Clear, yellow to amber mobile liquid Conforms

2.2 Odour: Characteristic, woody Conforms

2.3 Specific Gravity: 0.9100 to 0.9590 @ 20° C Conforms

2.4 Refractive Index: 1.5000 to 1.5200 @ 20° C Conforms

CONSTITUENT SPECIFICATION RESULT

3. GAS CHROMATOGRAPH ANALYSIS

Result(%)

Cyperene 0.61

Longifolene 0.62

Alpha-cedrene 0.05

Vestitenone 0.39

Alpha-himachalene 17.90

Gamma-himachalene 9.98

Gamma-curcumene 2.30

Beta-himachalene 48.92

Alpha-dehydro-AR-himachalene 0.74

Delta-cadinene 1.80

Delta-7,8-AR-himachalene 0.80

Alpha-calacorene 0.50

AR-himachalene 0.57

Oxido himachalane 0.36

Longiborneol 0.24 Cedrol 0.08

Beta-himachalene oxide 0.37

Beta-cedrene epoxide 0.41

Epi-cubenol 0.73

Himachalol 0.46

Cis-gamma-atlantone 0.60

Deodarone 0.36

Trans-gamma-atlantone 0.73

Cis-alpha-atlantone 0.46

Trans-alpha-atlantone 2.28

Note(1)Analytical conditions:GC Colume:Rxi-5SI 1 MS, Length:30.0m, Inside Diameter:0.25mm,

Thickness:0.25

Mass Spectrometer: Detector Type:Quadropole Ms, Ion Source:EI, Ion Source Temp:200.0C

Oven Temp Program:Rate:5.0Temperature(Degree):50.0-270.0