

CERTIFICATE OF ANALYSIS

PRODUCT NAME: PEPPERMINT OIL BP

BOTANICAL NAME: *Mentha x piperita L.*

COUNTRY OF ORIGIN: INDIA

| TEST (UNIT) | SPECIFICATION | RESULT |
|---------------------------------|------------------------------------|--------------------------|
| APPEARANCE | MOBILE LIQUID | MOBILE LIQUID |
| COLOUR | COLOURLESS TO PALE GREENISH-YELLOW | ALMOST COLOURLESS |
| CLARITY | CLEAR, NO FOREIGN MATTER | CLEAR, NO FOREIGN MATTER |
| ODOUR | FRESH, STRONG MINT | CHARACTERISTIC |
| RELATIVE DENSITY @ 20°C | 0.900 to 0.916 | 0.902 |
| OPTICAL ROTATION @ 20°C | -30° to -10° | -26° |
| REFRACTIVE INDEX @ 20°C | 1.457 to 1.467 | 1.460 |
| LIMONENE (%) | 1.0 to 3.5 | 2.9 |
| 1,8-CINEOLE (%) | 3.5 to 8.0 | 5.2 |
| RATIO OF 1,8-CINEOLE & LIMONENE | Min. 2 | 2.0 |
| MENTHONE (%) | 14.0 to 32.0 | 26.6 |
| MENTHOFURAN (%) | 1.0 to 8.0 | 3.7 |
| ISOMENTHONE (%) | 1.5 to 10.0 | 3.0 |
| MENTHYL ACETATE (%) | 2.8 to 10.0 | 5.1 |
| ISOPULEGOL (%) | Max. 0.2 | 0.1 |
| MENTHOL (%) | 30.0 to 55.0 | 42.0 |
| PULEGONE (%) | Max. 3.0 | 0.6 |
| CARVONE (%) | Max. 1.0 | 0 |
| FATTY & RESINIFIED OILS | COMPLIES | COMPLIES |
| ACID VALUE (mg KOH/g) | Max. 1.4 | 0.3 |
| SOLUBILITY | COMPLIES | COMPLIES |