

Certificate of Analysis

| Product | Menthol crystal | Quantity | 5MTs |
|----------|-----------------|-----------|------------|
| MFG Date | 2021/9/19 | Batch No. | 2021091901 |
| EXP Date | 2024/9/18 | Standard | USP38 |

| Item | USP | Result |
|--|---------------------------------------|---------|
| Identification | Colorless transparent | Conform |
| | hexagonal or needlelike | |
| | crystals | |
| Melting point(°C) | 41~44 | 42.1 |
| Solubility | 1g soluble in 5ml of 90%(v/v) | Conform |
| | alcohol, forming | |
| | a clear solution | |
| Specific rotation(25℃) | -45°∼-51° | -49° |
| Limit of Nonvolatile residue | Not overrun 0.05 under | 0.02 |
| (%) | condition of 105 $^{\circ}\mathrm{C}$ | |
| Organic volatile impurities | Solvent-Use dimethyl | Conform |
| | sulfoxide | |
| Chromatographic purity | The peak response due to | 99.7 |
| | menthol is not less than 99% | |
| As < | 3ppm | 1ppm |
| Heavy metals < | 10ppm | 5ppm |
| Residue on ignition < % | 0.1 | 0.01% |
| Related substances | Examine by gas | Conform |
| | chromatography | |
| Conclusion This batch goods meet standard of USP38 | | |

Inspector: Meng Cheng Checker: Yun Li