

Specification of Volatile oil loaded in nanovesicular suspension (Manose RM-031)

1. **Name of the raw material** : Volatile oil loaded in nanovesicular suspension
2. **Active components** : Volatile oil such as Holy basil 0.5% (eugenol)⁽¹⁾, etc.
3. **Scientific name of the plant / Family** : Containing Holy Basil (*Ocimum sanctum* L.)/
LABIATAE etc.
4. **Physical appearance of the raw material** : Turbid light yellowish suspension with specific odor
5. **pH of the raw material** : 5
6. **Standardization of the raw material** : HPLC fingerprint using eugenol as a marker⁽¹⁾
7. **Solubility** : Soluble in ethanol
8. **Microbial contamination** : None
9. **Biological activities** : Anti-bacterial⁽²⁾, anti-oxidant⁽³⁾ and anti-cancer⁽⁴⁾
10. **Safety** : No skin irritation in human volunteers
11. **Animal / human performance test** : Anti-cancer in animals⁽⁴⁾ and anti-bacterial
(*Propionibacterium acne*) in human volunteers⁽⁵⁾
12. **Pharmaceutical, food supplement or cosmetic applications**
: Anti-acne cosmetic products and anti-cancer food
supplement products
13. **Recommended concentrations in the product (%)**
: 1-5 %
14. **Storage** : Keep in tight and light protection container at room
temperature
15. **Precautions (if any)** : None
16. **Cost per kg** : -

References

1. Sims CA, Juliani HR, Mentreddy SR, Simon JE. Essential oils in holy basil (*Ocimum tenuiflorum* L.) as influenced by planting dates and harvest times in North Alabama. *Journal of Medicinally Active Plants* 2014, 2(3): 33-41.
2. Rahman MS, Khan MMH, Jamal MAHM. Anti-bacterial evaluation and minimum inhibitory concentration analysis of *Oxalis corniculata* and *Ocimum sanctum* against bacterial pathogens. *Biotechnology* 2010, 9: 533-536.
3. Kath RK, Gupta RK. Antioxidant activity of hydroalcoholic leaf extracts of *Ocimum sanctum* in animal models of peptic ulcer. *Indian Journal of Physiology and Pharmacology* 2006, 50: 391-396.
4. Serrame E, Lim-Sylianco CY. Anti-tumor promoting activity of decoction and expressed juice from Philippine medicinal plants. *The Philippine Journal of Science* 1995, 124: 275-281.
5. Sawarkar HA, Khadabadi SS, Mankar DM, Farooqui IA, Jagtap NS. Development and biological evaluation of herbal anti-acne gel. *International Journal of PharmTech Research* 2010, 2(3): 2028-2031.