

Specification of Gotu Kola extract (Manose RM-003)

1. **Name of the raw material** : Gotu Kola extract
2. **Active components** : Triterpene acids, alkaloids, glycosides and flavonoids⁽¹⁾
3. **Scientific name of the plant / Family** : Gotu Kola (*Centella asiatica* (L.) Urb.)/
UMBELLIFERAE
4. **Physical appearance of the raw material** : Dark brown-greenish solid with specific odor
5. **pH of the raw material** : 5
6. **Standardization of the raw material** : HPLC fingerprint using madecassoside as a marker
7. **Solubility** : Soluble in water and ethanol
8. **Microbial contamination** : None
9. **Biological activities** : Anti-inflammation⁽¹⁾, wound healing⁽¹⁾, memory enhancement⁽¹⁾ and anti-oxidant⁽¹⁾
10. **Safety** : No skin irritation in human volunteers
11. **Animal / human performance test** : Anti-inflammation and wound healing in human volunteers⁽²⁾
12. **Pharmaceutical, food supplement or cosmetic applications**
: Anti-inflammation and bruises reduction cosmetic products and memory enhancement food supplement products
13. **Recommended concentrations in the product (%)**
: 0.1-10 %
14. **Storage** : Keep in tight and light protection container at room temperature
15. **Precautions (if any)** : None
16. **Cost per kg** : -

References

1. Jamil SS, Nizami Q, Salam M. *Centella asiatica* (Linn.) Urban óA Review. Natural Product Radiance 2007, 6(2): 158-170.
2. Sastravaha G, Yotneungnit P, Booncong P, Sangtherapitikul P. Adjunctive periodontal treatment with *Centella asiatica* and *Punica granatum* extrcats. A preliminary study. Journal of International Academy of Peridontology 2003, 5(4): 106-115.