

Specification of Turmeric extract (Manose RM-018)

1. **Name of the raw material** : Turmeric extract
2. **Active components** : Flavonoids, curcumin and volatile oils⁽¹⁾
3. **Scientific name of the plant / Family** : Turmeric (*Curcuma longa* L)/ ZINGIBERACEAE
4. **Physical appearance of the raw material** : Dark yellow-orange solid with specific odor
5. **pH of the raw material** : 6
6. **Standardization of the raw material** : HPLC fingerprint using curcumin as a marker⁽¹⁾
7. **Solubility** : Soluble in water and ethanol
8. **Microbial contamination** : None
9. **Biological activities** : Anti-oxidant⁽¹⁾, anti-inflammation⁽²⁾, healing of peptic ulcer⁽³⁾ and anti-cancer⁽⁴⁾
10. **Safety** : No skin irritation in human volunteers
11. **Animal / human performance test** : Anti-oxidant in animals⁽¹⁾, anti-inflammation⁽²⁾, healing of peptic ulcer⁽³⁾ and anti-cancer⁽⁴⁾ in human volunteers
12. **Pharmaceutical, food supplement or cosmetic applications** : Anti-wrinkle and whitening cosmetic products and chondroprotective, healing of peptic ulcer and anti-cancer food supplement products
13. **Recommended concentrations in the product (%)** : 0.1-5 %
14. **Storage** : Keep in tight and light protection container at room temperature
15. **Precautions (if any)** : None
16. **Cost per kg** : -

References

1. Akram M, Uddin S, Ahmed A, Usmanghani K, Hannan A, Mohiuddin E, Asif M. *Curcuma long* and curcumin: A review article. Romanian Journal of Biology-Plant Biology 2010, 55(2): 65-70.
2. Deodhar SD, Sethi R, Srimal RC. Preliminary study on antirheumatic activity of curcumin (diferuloyl methane). Indian Journal of Medical Research 1980, 71:632-634.
3. Prucksunand C, Indrasukhsri B, Leethochawalit M, Hungspreugs K. Phase II clinical trial on effect of the long turmeric (*Curcuma longa* Linn) on healing of peptic ulcer. The Southeast Asian Journal of Tropical Medicine and Public Health 2001, 32:208-215.
4. Sharma RA, McLelland HR, Hill KA, Ireson CR, Euden SA, Manson MM, Pirmohamed M, Marnett LJ, Gescher AJ, Steward WP. Pharmacodynamic and pharmacokinetic study of oral Curcuma extract in patients with colorectal cancer. Clinical Cancer Research 2001, 7:1894-1900.