

Specification : Turmeric extract / สารสกัดขมิ้นชัน

(Manose RM-0018)

(Application : An active ingredient for anti-wrinkle/ whitening cosmetics and chondroprotective, peptic ulcer healing and anti-cancer food supplements / สารสำคัญในเครื่องสำอางต้านริ้วรอย / ช่วยให้ผิวขาว และผลิตภัณฑ์เสริมอาหาร บำรุงข้อ รักษาแผลในกระเพาะอาหาร และต้านมะเร็ง)

1. Name of the raw material : Turmeric extract
2. Active components : Flavonoids, curcumin and volatile oils<sup>(1)</sup>
3. Scientific name of the plant / Family : Turmeric (*Curcuma longa* L)/ ZINGIBERACEAE
4. Physical appearance : Dark yellow-orange solid with specific herbal odor
5. pH : 6
6. Standardization : HPLC fingerprint using curcumin as a marker<sup>(1)</sup>
7. Solubility : Soluble in ethanol

8. **Microbial contamination** : No pathogenic microorganism with less than 1,000 cfu/g of the total plate count of bacteria, yeast and fungi which is conformed to the Thai FDA regulation
9. **Biological activities** : Anti-oxidant<sup>(1)</sup>, anti-inflammation<sup>(2)</sup>, peptic ulcer healing<sup>(3)</sup> and anti-cancer<sup>(4)</sup>
10. **Animal / human performance test** : Anti-oxidation in animals<sup>(1)</sup>, anti-inflammation<sup>(2)</sup>, peptic ulcer healing<sup>(3)</sup> and anti-cancer<sup>(4)</sup> in human volunteers
11. **Safety** : No skin irritation in human volunteers
12. **Pharmaceutical, food supplement or cosmetic applications** : Anti-wrinkle/ whitening cosmetics and chondroprotective, healing of peptic ulcer and anti-cancer food supplement
13. **Recommended concentrations in the product** : 0.1 – 0.2 % w/w for cosmetics  
150 – 300 mg/day for food supplements

14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : None
16. Cost per kg : Please request

## References

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