

Specification of Golden Shower flower extract (Manose RM-007)

1. **Name of the raw material** : Golden Shower flower extract
2. **Active components** : Anthraquinones, flavonoids and proanthocyanidins⁽¹⁾
3. **Scientific name of the plant / Family** : Golden Shower (*Cassia fistula* L.)/
LEGUMINOSAE-CAESALPINOIDEAE
4. **Physical appearance of the raw material** : Brownish solid with specific odor
5. **pH of the raw material** : 4
6. **Standardization of the raw material** : HPLC fingerprint using catechin as a marker
7. **Solubility** : Soluble in water and ethanol
8. **Microbial contamination** : None
9. **Biological activities** : Anti-oxidant (DPPH, lipid peroxidation and chelating activity), MMP-2 (collagen degradation enzyme) inhibition and whitening effect by tyrosinase inhibition
10. **Safety** : No skin irritation in human volunteers
11. **Animal / human performance test** : Anti-oxidant in animals⁽²⁾
12. **Pharmaceutical, food supplement or cosmetic applications** : Anti-wrinkle and whitening cosmetic and 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. Bahorun T, Neergheen VS, Aruoma OI. Phytochemical constituents of *Cassia fistula*. African Journal of Biotechnology 2005, 4(13): 1530-1540.
2. Neelam C, Ranjan B, Komal S, Nootan C. Review on *Cassia fistula*. International Journal of Research in Ayurveda & Pharmacy 2011, 2(2): 426-430.