

Specification : 0.5 % w/v Mangosteen Peel Extract in propylene glycol /  
สารละลายสารสกัดเปลือกมังคุด 0.5 % w/v ใน propylene glycol  
(Manose RM-0064)

(Application : An active ingredient for anti - wrinkle / anti - acne and  
anti - inflammatory products / สารสำคัญในผลิตภัณฑ์เครื่องสำอาง  
ต้านริ้วรอย / ต้านเชื้อสิวและต้านการอักเสบ)

1. Name of the raw material : 0.5 % w/v Mangosteen Peel Extract in propylene glycol
2. Active components : Xanthones, flavonoids and triterpenes<sup>(1)</sup>
3. Scientific name of the plant / Family : Mangosteen peel (*Garcinia mangostana* L.)/  
GUTTIFERAE
4. Physical appearance : Light brownish liquid with specific herbal odor
5. pH : 5
6. Standardization : HPLC fingerprint using  $\alpha$ -mangostin as a marker<sup>(2)</sup>
7. Solubility : Soluble in water, ethanol and propylene glycol
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-inflammation<sup>(3)</sup>, anti-bacterial<sup>(4)</sup>, anti-cancer<sup>(5)</sup> and anti-oxidation<sup>(6)</sup>
10. Animal / human performance test : Anti-inflammation<sup>(3)</sup>, anti-cancer<sup>(5)</sup> and anti-oxidation<sup>(6)</sup> in animals
11. Safety : No skin irritation in human volunteers
12. Pharmaceutical, food supplement or cosmetic : Anti-wrinkle / anti-acne and anti-inflammatory products

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applications

13. Recommended concentrations in the product : 0.5 – 10 % w/v
14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : None
16. Cost per kg : Please request

References

1. Al-Massarani SM, El Gamal AA, Al-Musayeib NM, Mothana RA, Basudan OA, Al-Rehaily AJ, Farag M, Assaf MH, El Tahir KH, Maes L. (2013) Phytochemical, antimicrobial and antiprotozoal evaluation of *Garcinia mangostana* pericarp and  $\alpha$ -mangostin, its major xanthone derivative. **Molecules**. 18: 10599 - 10608
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5. Aisha A, Abu-Salah K, Ismail Z, Abdul MA. (2012) *In vitro* and in vivo anti-colon cancer effects of *Garcinia mangostana* xanthones extract. **BMC Complementary and Alternative Medicine**. 12: 104–112
6. Devi Sampath P, Vijayaraghavan K. (2007) Cardioprotective effect of  $\alpha$ -mangostin, a xanthone derivative from mangosteen on tissue defense system against isoproterenol-induced myocardial infarction in rats. **Journal of Biochemical and Molecular Toxicology**. 21: 336–339