

Specification : Siamese Neem Leaf Extract/ สารสกัดใบสะเดา (Manose RM-0118)

(Application : An active ingredient for anti-acne cosmetic/

สารสำคัญในผลิตภัณฑ์เครื่องสำอางต้านสิว)

1. Name of the raw material : Siamese Neem Leaf Extract
2. Active components : Limonoids, phenolic compounds, flavonoids, tannins, saponins, triterpenes and azadirachtin⁽¹⁾
3. Common and scientific name/ Family of the plant : Siamese Neem (*Azadirachta indica* var. *siamensis*)/ MELIACEAE
4. Physical appearance : Dark-green solid with herbal odor
5. pH : 5
6. Standardization : HPLC fingerprint using azadirachtin acid as a marker
7. Stability of active constituent : Azadirachtin is stable at room temperature and light protection condition
8. Solubility : Soluble in water and ethanol
9. 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
10. Biological activities : Anti-oxidant⁽¹⁾, anti-inflammatory⁽¹⁾, wound healing⁽¹⁾, anti-cancer⁽¹⁾, anti-diabetic⁽²⁾, hepatoprotective⁽¹⁾, immunomodulatory⁽¹⁾, anti-microbial⁽¹⁾ and anti-acne⁽²⁾ activity
11. Animal / human performance test : Anti-inflammatory⁽¹⁾, wound healing⁽¹⁾, anti-diabetic⁽¹⁾ and hepatoprotective⁽¹⁾ activity in animals

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| 12. Safety | : | No skin irritation in human volunteers / LD ₅₀ > 5 g/kg BW in rats |
| 13. Pharmaceutical, food supplement or cosmetic applications | : | Anti-acne, anti-microbial, anti-oxidant, anti-inflammatory and wound healing in cosmetics/ anti-cancer, anti-diabetic, hepatoprotective and immunomodulatory in food supplements |
| 14. Recommended concentrations in the product | : | 0.1-1.0% w/w in cosmetics and food supplements |
| 15. Storage | : | Keep in tight and light protection container at room temperature |
| 16. Precautions | : | None |
| 17. Cost per kg | : | Please request |

References

1. Alzohairy MA. (2016) Therapeutic roles of *Azadirachta indica* (Neem) and their active constituents in disease prevention and treatment. **Evidence-Based Complementary and Alternative Medicine**. Article ID 7382506.
2. Kumar H, Verma M, Garg H, Garg I, Sharma I. (2023) Determining anti-acne potential of *Azadirachta indica* leaf powder, herbal hydrogel using *S. aureus* growth inhibition model, by agar well diffusion technique. **Current Cosmetic Science**. In press.
3. Manose In-house Project “The Development of Extract from Thai Medicinal Plants for Anti-acne”, Manose Health and Beauty Research Center (www.manose.co), unpublished, 2020.