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**Specification : Nourishing Massage Niosome Spray (Manose PR-0001)**

**(Application : For anti-inflammation and pain/sprain relief)**

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1. **Name** : **Nourishing Massage Niosome Spray**
  2. **Active Compositions** : Aromatic volatile oils from Thai medicinal plants such as Orange (*Citrus reticulata*, Blanco), Plai (*Zingiber montanum*) and the extract of Thao En-on/ (*Cryptolepis buchanani*) encapsulated in nanovesicles
  3. **FDA Registration No.** : In the process of cosmetic product notification with Thai FDA
  4. **Characteristics**
    - **Physical appearance** : Light yellowish clear solution
    - **pH** : 5
    - **Odor** : Slight odor of plant aromatic oil and extracts
  5. **Standardization** : HPLC fingerprint using sabinene as a marker
  6. **Biological activities** :
    - Anti-inflammatory activity by inhibiting the release of nitric oxide in macrophage (RAW 264.7) of  $59.60 \pm 1.31\%$  at 5 mg/ml in comparing to the standard anti-inflammatory drug, triamcinolone acetonide of  $42.59 \pm 2.28\%$
    - Anti-inflammatory activity by heat denaturation inhibition of albumin from egg white at the  $IC_{50}$  value of 8.67 mg/ml of 0.27 fold of the standard anti-inflammatory drug, diclofenac (the  $IC_{50}$  value of 2.38 mg/ml)
    - Anti-inflammatory activity in EPP (ethyl phenyl propiolate) induced ear edema of Wistar rats at 30 minutes of  $75.43 \pm 14.93\%$  which is 1.33 folds of the standard anti-inflammatory diclofenac gel (1%) ( $56.57 \pm 12.20\%$ )

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7. Clinical Performance : Reduce inflammation and pain/ sprain
  8. Microbial Contamination : No pathogenic microorganism contamination. The amounts of the aerobic bacteria, yeast and fungi are less than 1,000 cfu/g which is in the acceptable range of Thai FDA, Ministry of Public Health
  9. Safety Evaluation : No skin irritation in human volunteers by the closed patch test
  10. Stability : Physically and chemically stable by the freeze-thaw process (45 and 4 °C) of 6 cycles
  11. Shelf life at 30 °C : 5 years
  12. Indication and use : Spray on skin, neck, waist, back and joints (knees, ankles, fingers, wrist etc.) where needed
  13. Packaging and Storage : 25 ml in a bottle with sprayer/ keep in dry and cool place protected from light
  14. Precaution :
    - For external use only
    - Avoid from inhalation and get into eyes
    - Rinse off and stop using when there is any undesirable effect
  15. Cost : Please request



**Nourishing Massage Niosome Spray**