

Product Specification : Type 1 of Hazardous Material Control

(วัตถุอันตรายชนิดที่ 1)

Name : **Body Lotion Spray for Mosquito Repellent**

(ผลิตภัณฑ์โลชั่นสำหรับผิวทากายใช้กันยุง)

Thai FDA Registration No. : 47/59**Active Compositions** : Containing natural products of aromatic volatile oil from Thai medicinal plants including Citronella/ ตะไคร้หอม (*Cymbopogon nardus*), Kaffir Lime/ มะกรูด (*Citrus hystrix* DC.), Hairy Basil/ แมงลัก (*Ocimum basilicum*, Lour) and Orange/ ส้ม (*Citrus reticulata*, Blanco) encapsulated in nanovesicles**Characteristics :**

- Physical appearance : Light yellowish clear solution
- pH : 5
- Odor : Slight odor of Citronella
- Particle size and zeta potential : None

Standardization : HPLC fingerprint by using citronellal as a marker**Biological activities :**

- Anti-inflammation activities by the inhibition of nitric oxide release in macrophage (RAW 264.7) at 5 mg/ml of $59.39 \pm 1.58\%$ (in comparing to the standard triamcinolone acetonide of $42.59 \pm 2.28\%$)
- Anti-inflammation activities by the inhibition of denaturation by heat of albumin from egg white with the IC_{50} value of 13.44 ± 1.9 mg/ml (in comparing to the standard drug diclofenac of 2.38 ± 0.03 mg/ml)
- Anti-inflammation activities in EPP (ethyl phenyl propiolate) induced ear edema of Wistar rats of $71.43 \pm 11.61\%$ of 1.26 folds in comparing to the standard diclofenac gel (1%) which gave $56.57 \pm 12.20\%$

Clinical Performance : Reduce inflammation and pain from insect bite**Microbial Contamination** : None**Safety Evaluation** : No skin irritation in human volunteers by the closed patch test

- Stability** : Physical and chemical stability by the freeze-thaw process (45 and 4 °C) of 6 cycles
- Shelf life at 30 °C** : 5 years
- Indication** : Spray on skin or clothes and pets for mosquito and insect repellent with the sustained effect of 3-5 hours
- Packaging and Storage** : 25 ml in a bottle with sprayer/ keep in dry and cool place protected from light
- Precaution** : - For external use only
- Avoid from inhalation and get into eyes
- Rinse off and stop using when there is any undesirable effects