



**Repel  
Mosquito®**  
Insect Control  
by Smart Inovation®

## Benefits of Si Repel Mosquito®

- *Prevention of mosquito-transmitted diseases.*
- *Long-lasting protection against bites.*
- *Easy to apply and cost-effective*
- *Non-toxic and safe.*
- *High efficacy and long durability.*

# FACTSHEET

## Si REPEL MOSQUITO® 101-TF

### TEXTILE FINISH

### PRODUCT DESCRIPTION

Sustainable functional finish with insect repellent properties. This treatment is effective for more than 100 washes in the fight against mosquitoes, ticks, flies, lice and other bugs. Ideal for preventing insect bites and transmission of diseases such as Malaria, Dengue, Zika, Chikungunya, Yellow-fever, and others. Si Repel Mosquito® provides long-lasting safe protection and cost-effective added-value to textiles, whether they are fabrics, garments, fibres or nonwovens. This Si technology by Smart Inovation® is unique, 100% portuguese and patented in 147 countries.

### EASY APPLICATION

Si Repel Mosquito® is applied at the manufacturing stage using the existing traditional finishing processes. It is supplied as a liquid and can be applied via padding, exhaustion or spraying. Si Repel Mosquito® is compatible with several other textile finishes and can be applied on both synthetic and natural fibres.

### SAFE AND EFFECTIVE

Our products are tested according to international standards to meet regulatory requirements and demanding costumers. Si Repel Mosquito® is BPR approved, Oeko-Tex Standard 100 compliant and dermatologically tested. It is also safe for babies from 6 months of age and pregnant/breastfeeding women. With Si Repel Mosquito®, your textiles will be pushing bugs away for over 100 washes, drastically reducing the health risks associated with insect bites.

### ECO-FRIENDLY

Smart Inovation® manufactures only environmentally sustainable functional treatments. The active ingredient used in the Si Repel Mosquito® treatment is USA FDA and EPA approved, REACH compliant, WHO recommended, does not contain Substances of Very High Concern (SVHC), has no toxicity and no environmental impact. This product is biodegradable and completely degraded in the environment within a very short time.

### REPELLING VS KILLING

Si Repel Mosquito® is a true repellent that simply drives bugs away. The treated textile creates an effect that is not perceptible to humans or other animals, but ensures that insects stay 40-50cm away from the treated area. It has no toxicity and does no kill the insect. Not killing also means the insect will not develop resistance against the product. We don't use Permethrin, Icaridin, DEET or other toxic insecticides which have high toxicity, environmental impact, very intense smell and are forbidden for use in children before 2-3 years of age.

### THE ACTIVE INGREDIENT

The active ingredient used in Si Repel Mosquito® is IR3535® is a nature-inspired insect repellent which is not irritating to the skin, has no toxicity and neutral scent. This substance is manufactured by Merck and has been in the market for over 30 years. IR3535 is widely used in various types of products such as lotions and sprays. This is a worry-free solution for long-lasting and safe defence against insects.

## MOSQUITO ACTIVITY TESTING AND CERTIFICATION

Si Repel Mosquito® has been tested against various types of insects and proven excellent efficacy results especially in the mosquitoes responsible for the transmission of vector-borne diseases.

**Test guidelines on ticks:** (“mouse feed test” and “arm in cage testing”):

- WHO/CDS/NTD/WHOPES/GCDPP/2006
- WHO/CDS/NTD/WHOPES/2009.4
- USA EPA Product performance test OPPTS 810-3700
- European Commission - *Technical Notes For Guidance:*
  - Product Type 18 – Insecticides, Acaricides and products to control other arthropods.
  - Product Type 19 – Repellents And Attractants.
  - CA-Dec12-Doc.6.2.

**Test guidelines on mosquitoes:** (“mouse feed test” and “arm in cage testing”):

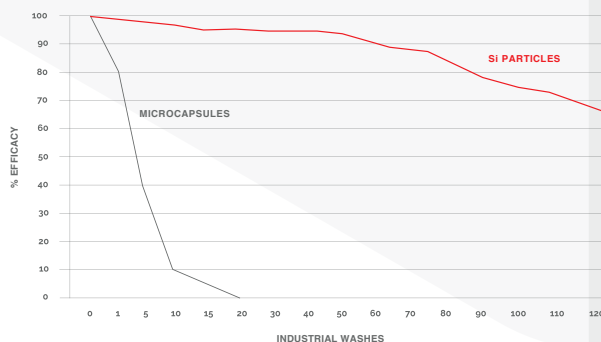
- USA EPA (USA Environment Protection Agency), EPA Product performance test guidelines OPPTS 810-3700: insect repellents for human skin and outdoor premises.
- WHO Guidelines for testing of Ticks kill or repellence spray sample.

## MOSQUITOS SPECIES

DISEASE	MOSQUITO	MOSQUITO	REGIONES
Dengue	<i>Aedes Aegypti</i>	<i>Aedes Albopictus</i>	Asia   Africa   South America
Chikungunya	<i>Aedes Albopictus</i>	<i>Aedes Aegypti</i>	Asia   Africa   America   Europe
Malaria	<i>Anopheles Gambiae</i>		Asia   Africa   America
Filariosis	<i>Culex Quinquefasciatus</i>		Asia   Africa   America
Leishmaniose	<i>Phlebotomus</i>		Asia   Africa   America   Europe
Yellow-fever	<i>Aedes Aegypti</i>		Africa   South Africa
Zica	<i>Aedes Aegypti</i>	<i>Aedes Albopictus</i>	Asia   South America   Caribbean

## MICROCAPSULES vs Si PARTICLES

Our patented technology does not use microcapsules. The Si technology consists of a matrix of silica (Si) particles which carry the active ingredient on their surface and fixes it on the substrate, providing durability, high-performance and washing resistance. Unlike microcapsules, our innovative system is not affected by temperature, friction, UV exposure or other factors.



**+ 100 WASHES**

## WHERE TO APPLY

- Outdoor
- Sportswear
- Workwear
- Socks
- Military
- Bed linen
- Mattress ticking
- Camping
- Home textiles



## THE SI HANGTAG

Innovative functions and added-value features must be promoted strongly. Use the Si hangtag to communicate the insect repellent protection incorporated in your products! This will help promoting the advantages and characteristics of Si Repel Mosquito® to the final customer. We provide 50 hangtags free of charge for every kg of product purchased.

