



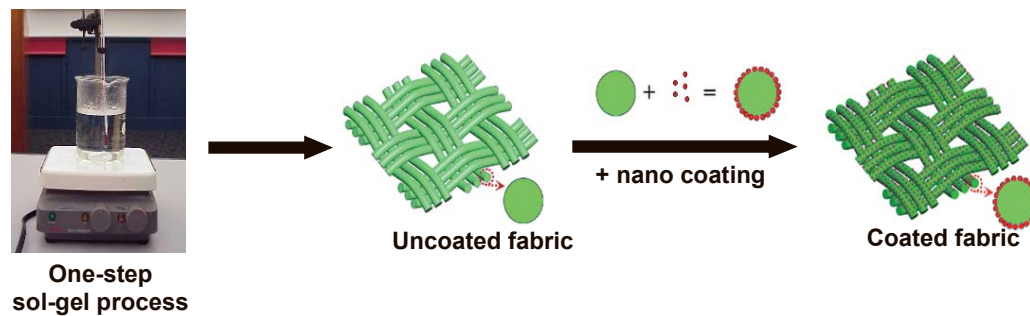
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### Product Background

- Why do people opt for water-based spray coatings? Safer, less harmful on the environment, and less odorous.
- No harmful solvent used → **Low production cost!**
- **Breathable** and **light weight**.
- **High superhydrophobic activity** with a contact angle of 167° and a shedding angle lower than 10°.
- **High stability** against repeated abrasion without an apparent reduction in contact angle.
- **Long lasting!**

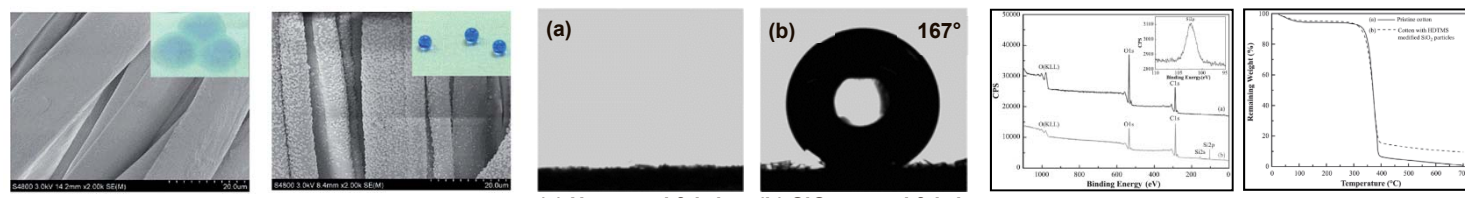
### Methodology



### Novelty/Inventiveness

- Saves Water**  
Reduces wash cycles
- Non-toxic**  
Chemically inert & bio-compatible
- Doesn't alter appearance**  
125 nm thick, > 800× thinner than a human hair
- Stays Clean**  
Stain resistance

### Product Image and Product Characteristics/Results



Sample	Water contact angle (°)	Water shedding angle (°)	Water repellency rating (%)	Particle average size (nm)
HTMS1	158.1 ± 1.5	14 ± 0.9	90	142.9
<b>HTMS2</b>	<b>167.0 ± 0.5</b>	<b>8 ± 0.5</b>	<b>100</b>	<b>137.9</b>
HTMS3	165.7 ± 1.1	9 ± 0.5	95	121.1
HTMS4	164.5 ± 0.8	10 ± 0.6	95	118.3
HTMS5	163.6 ± 1.6	10 ± 0.6	95	111.0



### Benefits/Usefulness/Applicability

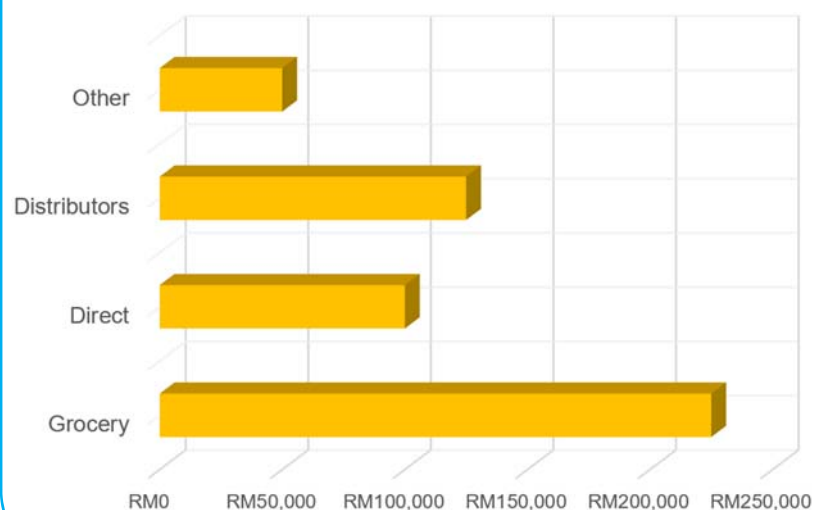
- Eco-friendly**  
Water-based & solvent-free
  - Superhydrophobic**  
Water contact angle exceed 150°, shedding angle less than 10°
  - Reduces odor**  
Reduces odor emitted from moist surface
  - Breathable**  
Doesn't trap odor or moisture
- Fabrics Shoes Woods Glass

### Marketability & Commercialisation

#### Size and Trends

Household consumption expenditure for miscellaneous goods & services:  
2019.....RM1.1 billion  
2016.....RM982 million  
Source: Department of Statistics, Malaysia

#### Potential Markets



### Cost Analysis

The proposed market price for 250 mL GetDry! is **RM25.00** which is still lower than the commercially available water-proof spray.

Product	Specification		
	Drying time (hrs)	Volume (mL)	Price (RM)
Simple Shine Premium	0.5 (apply twice)	240	66.00
303 Fabric Guard	6 - 12	950	123.00
Scotchgard Water and Sun Shield	2 - 4	300	108.00
Atsko Silicone Water Guard	24	300	55.00
KIWI Boot Protector	24 - 48	350	61.00
KIWI Camp Dry Heavy Duty	24 - 48	350	46.00
<b>GetDry!</b>	<b>0.2</b>	<b>250</b>	<b>25.00</b>

### Publication

- Synthesis of water-based superhydrophobic coating for cotton fabric through sol-gel process, accepted, Feb 2021 (**SCOPUS Index**)
- Nanoencapsulated Aroma Finishing on Fabric by Sol-Gel Process, accepted, Dec 2020 (**SCOPUS Index**)

Achievement/Award  
**SILVER CITREX, 2020**

Industrial Partner  
**NANOTEXTILE**