

## TECHNICAL REPORT

### SAMPLE IDENTIFICATION

Product/s Description: Magic 6 in 1 Universal Cleaner  
 Customer: Rubbedin Pty Ltd  
 Report No. ACS 231109

### PURPOSE

To compare the oil emulsification properties of Magic 6 in 1 Universal Cleaner with several competitor products.

#### *Products used:*

Product	Dilution rate
Ajax Professional – Kitchen	As Supplied
Thankyou – Universal Cleaner	As Supplied
Pine O Clean – Disinfectant Multipurpose Cleaner – Lemon Lime	As Supplied
Cleanery – Kitchen Cleaner	16g sachet dissolved in 500mL water as directed.
Cove – Surface Cleaner	125mL pouch diluted to 475mL with water as directed.
KOH – Universal Cleaner	As Supplied
Rubbedin 6 in 1	As Supplied

### PROCEDURE

#### Panel Testing

##### *Soil and panel preparation:*

Standard soil was prepared by combining olive oil (45%), copha (45%) and carbon black concentrate (10%). The soil was blended for 1 hour.

Ceramic tiles were cleaned, degreased, and dried.

To a room temperature ceramic tile 15mL of soil was applied across one end.

Using an M10 threaded rod, the soil was dragged down the length of the plate. Excess soil was dragged off the end of the plate.

Plates were allowed to sit overnight.

Before being scrubbed plates were placed in the refrigerator for 5 minutes.

##### *Scrub Testing (completed in duplicate):*

Panels were then placed on a scrub/abrasion test apparatus. 2g of each solution was sprayed onto a standard sponge pad and a 44g weight applied. The scrubbing apparatus was run for 10 cycles at 20rpm. The scrubber was stopped before another 5mL of solution was applied to each sponge. The scrubbing apparatus was run for a further 10 cycles at 20rpm. Panels were removed from the scrubber, rinsed with 200mL tap water (low pressure) before being allowed to dry.

Evaluation of cleaning performance on scrubbed parts of the panels was made using a visual evaluation of cleaning performance was made using a 1-10 scale (1=no cleaning, 5=perfect cleaning) based on the IKW All Purpose Cleaners 2014 test method.

### Emulsification Testing

Soil was prepared using Olive oil with 0.1% Solvent Blue dye

In a 250mL measuring cylinder 100mL of product and 10mL of soil were added. The cylinder was stoppered and shaken for 10 cycles. The cylinder was photographed immediately after shaking and then again at 10 minutes.

### RESULTS

Visual evaluation of cleaning performance was made using a 1-5 scale (1=no cleaning, 5=perfect cleaning) based on the IKW All Purpose Cleaners 2014 test method.

Product	Scrub	Emulsification	Foam	Scrub + Emulsification	Quick Break
Control	1			1	
Ajax	2	4	Medium	6	No
Thankyou	3	2	High	5	Yes
PineOClean	4	3	High	7	No
Cleanery	3	4	Medium	7	No
Cove	2	3	High	5	No
KOH	2	2	Low	4	Yes
Rubbedin 6in1	2	3	Medium	5	Best

### CONCLUSION

Results show that water has almost no cleaning effect on the test soil. KOH was the overall worst performer. Best cleaning performance was observed for PineOClean. Best overall performers were PineOClean and Cleanery. Rubbedin 6 in 1 performed similarly to Cove and Thank You for emulsification and produced the best emulsification/quick break performance.

### Reported By:



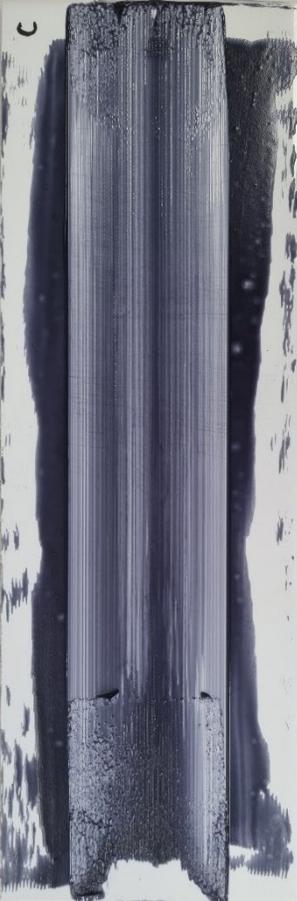
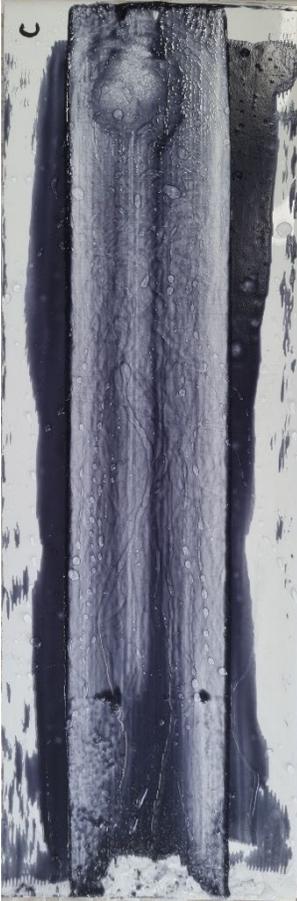
Roger White

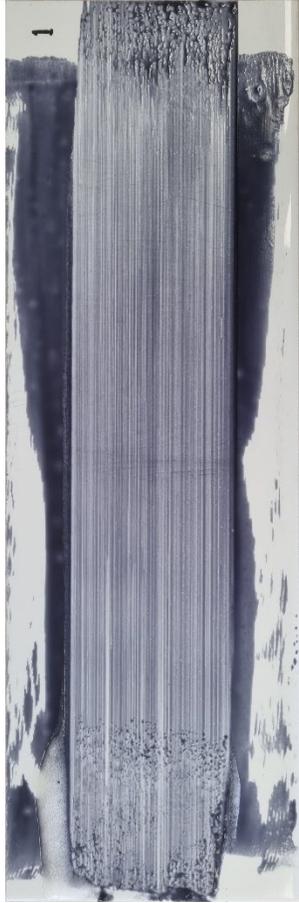
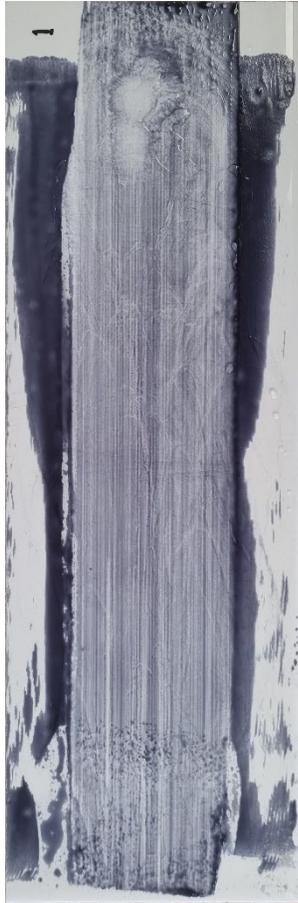
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Australian Chemical Services Pty Ltd

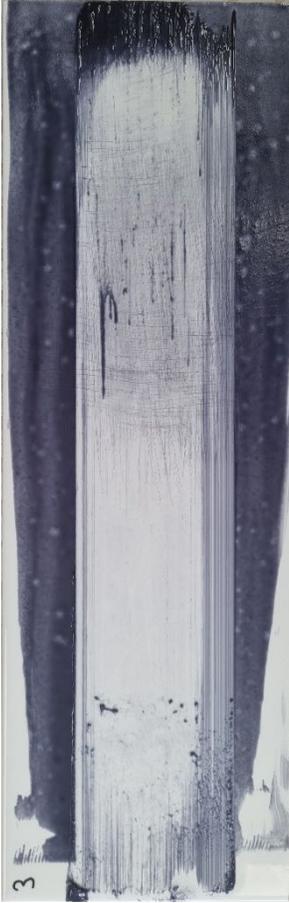
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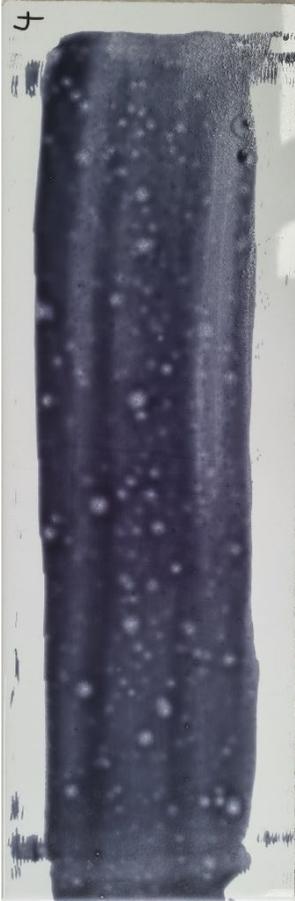
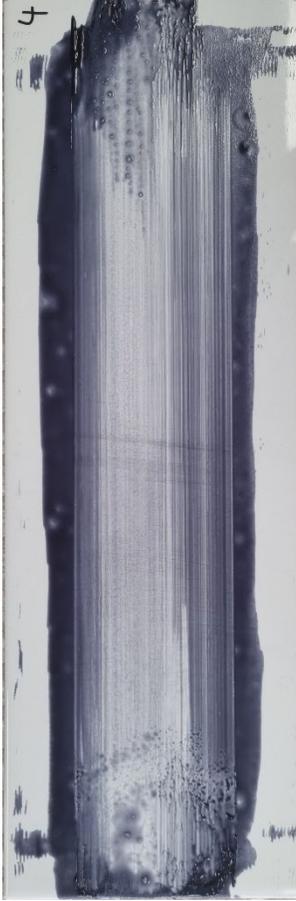
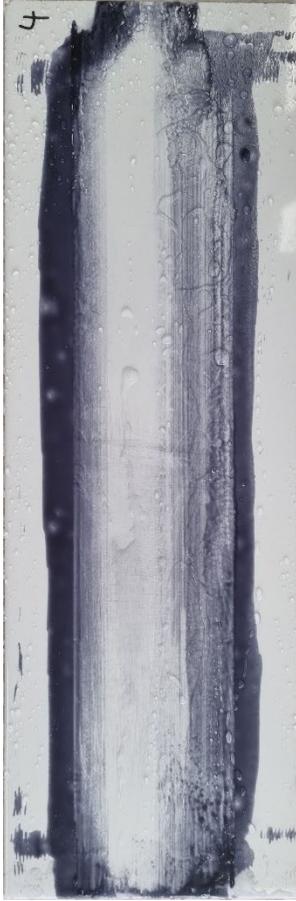
**Scrub Testing Photos**

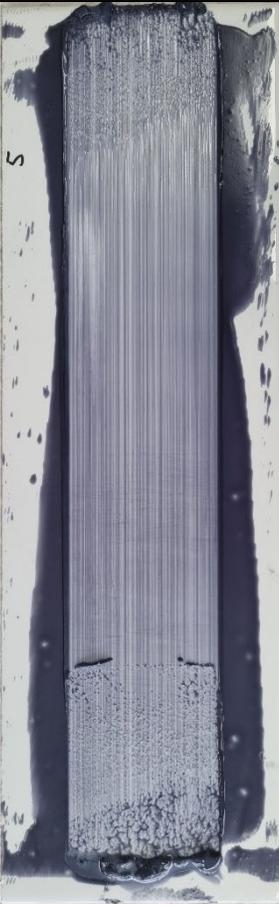
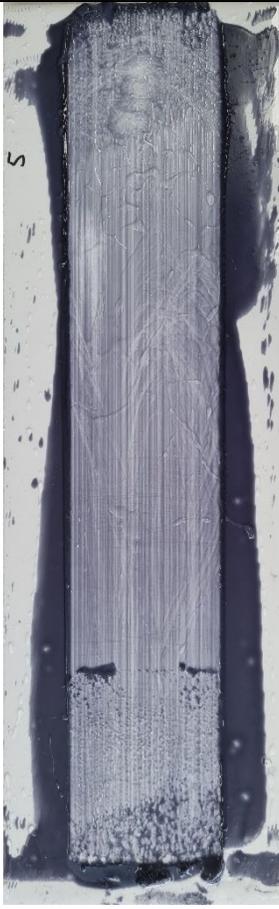
	Tile #	Before	After scrubbing	After Rinsing
<b>Control</b>	<b>C</b>			

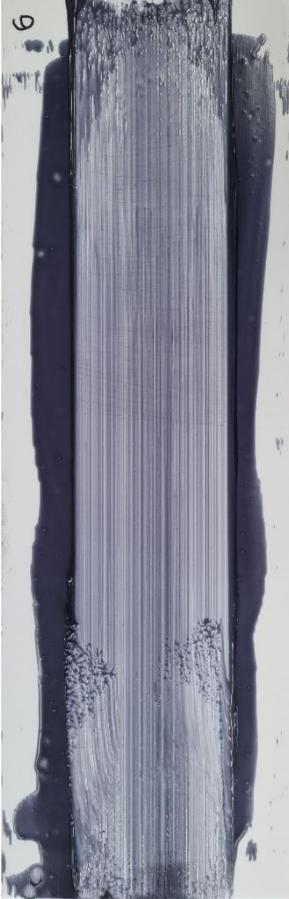
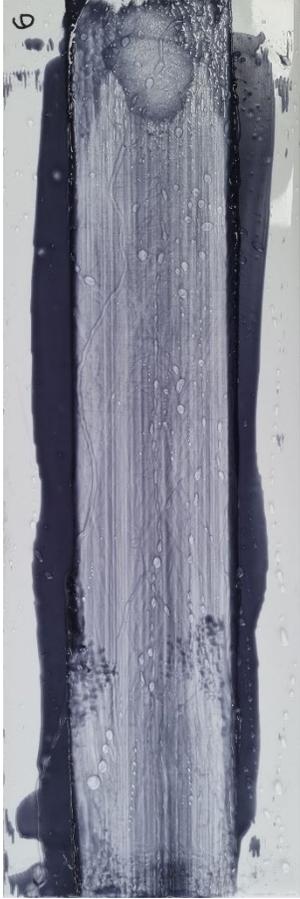
	Tile #	Before	After scrubbing	After Rinsing
<b>Ajax</b>	<b>1</b>			

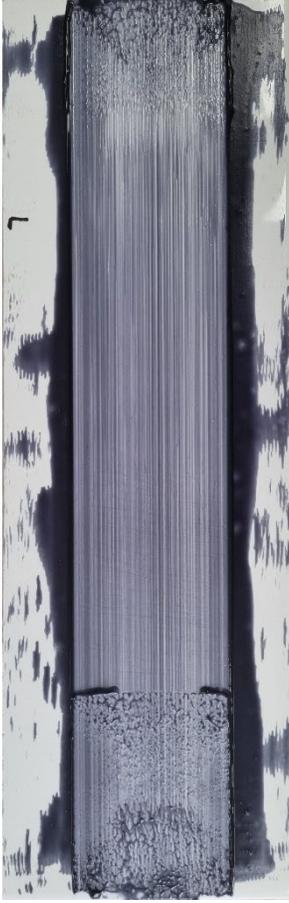
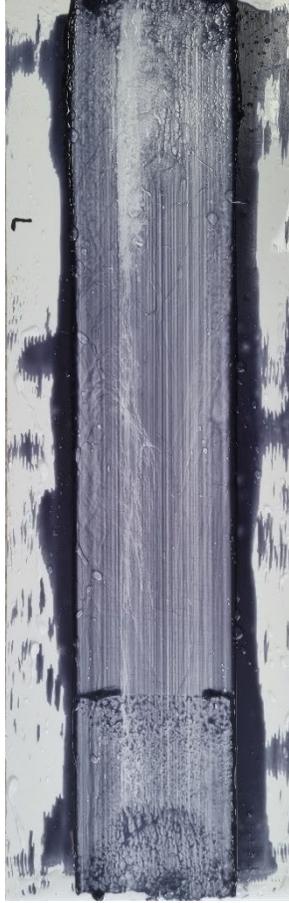
	Tile #	Before	After scrubbing	After Rinsing
<b>Thank You</b>	<b>2</b>			

	Tile #	Before	After scrubbing	After Rinsing
<b>Pine O Clean</b>	<b>3</b>			

	Tile #	Before	After scrubbing	After Rinsing
<b>Cleanery</b>	<b>4</b>			

	Tile #	Before	After scrubbing	After Rinsing
<b>Cove</b>	<b>5</b>			

	Tile #	Before	After scrubbing	After Rinsing
<b>KOH</b>	<b>6</b>			

	Tile #	Before	After scrubbing	After Rinsing
6 in 1	7			

**Emulsification Testing Photos**

	Ajax	Thank You	Pine O Clean	Cleanery	Cove	KOH	6 in 1
Initial							
10 minutes							