

22 June 2026
Job No: 1003556.2000

Resene Paints Limited
32 - 50 Vogel Street
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Attention: Greg Percival

Dear Greg

VOC content calculations

This letter sets out our review of your volatile organic compound (VOC) calculations for 13 timber stain products (Abodo Protector 2 range). This work was done for Resene Paints Limited (Resene) in accordance with our letter of engagement dated 18 May 2026.

1 Scope of work

For each product, we were provided with the formulation (weight percent of each raw material), Safety Data Sheets (SDS) for all raw materials, and a copy of Resene's VOC calculation.

To confirm that Resene's calculated VOC content for each product is correct, we checked that:

- The product formulation weight percentages add up to 100% (no missing raw materials).
- All VOC listed on the SDS for raw materials are included in the VOC calculation for each product. We used the Australian Paint Approval Scheme (APAS) VOC definition:
 - **VOC** - organic compounds present in paint formulations (either as individual ingredients of the formula or as part of e.g., an intermediate raw material) that have:
 - o a vapour pressure >0.01mm Hg at 21°C; or
 - o an initial boiling point <250°C measured at a standard pressure of 101.3 kPa.

Note 1: Ammonia will be classified as a VOC. Note 2: Acetone is not considered a VOC as current evidence indicates it does not participate in smog forming reactions.
- The weight percent for each raw material used in the VOC calculation matches the formulation.
- The weight percent of VOC in each raw material used in the VOC calculation matches the maximum as reported on the SDS.
- The calculation of the concentration of VOC in each product is correct.

2 Assessment of results

2.1 Verified VOC content

Table 2.1 presents the VOC content for each product.

Table 2.1: VOC calculations summary for Abodo Protector 2 range products

Product	Resene's reported VOC content (g/L)	VOC content determined by T+T (g/L)
Abodo Protector 2 – Clear	13.21	13.95
Abodo Protector 2 – White	12.81	13.53
Abodo Protector 2 – Patina	12.80	13.51
Abodo Protector 2 – Straw	12.81	13.53
Abodo Protector 2 – Teak	12.85	13.57
Abodo Protector 2 – Walnut	12.84	13.56
Abodo Protector 2 – Manuka	12.86	13.58
Abodo Protector 2 – Ebony	12.82	13.54
Abodo Protector 2 – Graphite	12.83	13.55
Abodo Protector 2 – Nero	12.77	13.49
Abodo Protector 2 – Natural	12.82	13.53
Abodo Protector 2 – Pearl	12.81	13.52
Abodo Protector 2 – Bare	12.80	13.52

2.2 Summary of findings

The assessment of each formulation is documented in **Appendix A**. We have used the item Codes provided by Resene to identify each raw material to protect confidential formulation information. The assessment showed that:

- Formulations for all 13 products add to 100%. The table shows rounded weight percent (wt%) values.
- One raw material containing VOC was missed in Resene's VOC calculations (AC103) in **Appendix A**). The individual VOC content of the raw material was 49.5 g/L, and it was present in each product formulation in small amounts between 0.26 – 0.28 wt%.
- A majority (26 out of 30) of the raw materials listed did not have VOC content. Of the four raw materials identified to contain VOCs:
 - Two were very similar in VOC content to that reported by Resene (AH695 and LK619);
 - As mentioned above, one raw material with VOC content was not identified by Resene (AC103); and
 - One raw material (AB419) was found to have a difference in VOC content (wt%) of 10 percentage points from that identified in Resene's calculation.
- Our VOC content calculations in **Appendix A** use the (verifiable and conservative) VOC content reported as the maximum weight percentage on the raw material SDS.
- The increase in estimated VOC content for each product using our method was an additional 0.72 – 0.74 g/L only. Each product remained within the 'Low VOC Level' category defined by APAS as 5 – 49 g/L.

- The products are all timber stains, for which the VOC limit in Eco Choice Aotearoa specification for paints (EC-07-25) is < 85 g/L. All products meet this criterion.

3 Conclusion

The VOC content calculations for the formulations of the 13 products (refer Section 2.1) have been checked. We can verify the maximum VOC limits according to our calculations, as reported in **Appendix A**.

4 Applicability

This report has been prepared for the exclusive use of our client Resene Paints Ltd., with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

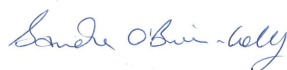
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22-Jun-26

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Appendix A Calculation check table

Raw Material Code	VOC content of RM (wt %)		Formulation (wt % of each RM)												
	As used by Resene in VOC calc.	Maximum as reported on SDS	Abodo Protector 2 – Clear	Abodo Protector 2 – White	Abodo Protector 2 – Patina	Abodo Protector 2 – Straw	Abodo Protector 2 – Teak	Abodo Protector 2 – Walnut	Abodo Protector 2 – Manuka	Abodo Protector 2 – Ebony	Abodo Protector 2 – Graphite	Abodo Protector 2 – Nero	Abodo Protector 2 – Natural	Abodo Protector 2 – Pearl	Abodo Protector 2 – Bare
AB419	80	90	0.56	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.52	0.53	0.53	0.52	0.52
AB959	0	0	0.34	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.31	0.32
AC103	0	5	0.28	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.26	0.27	0.27	0.26	0.26
AF612	0	0	0.16	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.15	0.16	0.15	0.15	0.15
AH695	95	96	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
AU664	0	0	0.37	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.36	0.35	0.35	0.35
EO403	0	0	5.38	5.01	5.02	5.02	5.07	5.08	5.07	5.08	5.04	5.13	5.06	5.01	5.04
EZ317	0	0		1.85	2.25	2.08	1.62	2.44	1.97	3.46	2.73		3.08	2.04	3.05
LK619	2	2	35.80	33.32	33.41	33.40	33.78	33.80	33.78	33.82	33.54	34.13	33.67	33.38	33.53
PK483	0	0						0.18		0.44		2.05			
PK577	0	0									1.09				
PR681	0	0					0.32	1.16	1.75						
PW545	0	0		3.67	2.87	2.81				0.26	1.17	0.39	0.75	3.01	1.81
PY501	0	0				0.40								0.26	
PY624	0	0					2.35	0.35	0.62				0.66		
RK293	0	0	3.43	3.19	3.20	3.20	3.23	3.24	3.23	3.24	3.21	3.27	3.22	3.19	3.21
RO118	0	0	1.12	1.04	1.05	1.05	1.06	1.06	1.06	1.06	1.05	1.07	1.05	1.05	1.05
SG864	0	0		0.42	0.40	0.43	0.56	0.56	0.64	0.46	0.40	0.74	0.45	0.42	0.39
SW814	0	0	51.03	47.50	47.62	47.60	48.15	48.18	48.14	48.21	47.80	48.64	47.98	47.58	47.79

Raw Material Code	VOC content of RM (wt %)		Formulation (wt % of each RM)												
	As used by Resene in VOC calc.	Maximum as reported on SDS	Abodo Protector 2 – Clear	Abodo Protector 2 – White	Abodo Protector 2 – Patina	Abodo Protector 2 – Straw	Abodo Protector 2 – Teak	Abodo Protector 2 – Walnut	Abodo Protector 2 – Manuka	Abodo Protector 2 – Ebony	Abodo Protector 2 – Graphite	Abodo Protector 2 – Nero	Abodo Protector 2 – Natural	Abodo Protector 2 – Pearl	Abodo Protector 2 – Bare
SZ850	0	0		0.32	0.31	0.29		0.20		0.33	0.28	0.35	0.26	0.30	0.31
TC746	0	0	0.62	0.57	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.58	0.58	0.58
TS707	0	0										0.27			
WA424	0	0		0.66	0.53	0.52					0.28		0.18	0.55	0.37
WA638	0	0					0.56	0.31	0.49				0.16		
WA693	0	0	0.31	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
WC588	0	0										0.34			
WC597	0	0					0.22		0.18						
WN358	0	0	0.49	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.47	0.46	0.46	0.46
WN484	0	0			0.15			0.16		0.23	0.18		0.21		0.20
WN570	0	0			0.15	0.18		0.21		0.35	0.20	0.54	0.22	0.16	0.20
Total VOC wt%			1.344	1.251	1.254	1.254	1.268	1.269	1.268	1.270	1.259	1.281	1.264	1.253	1.259
Density			1.038	1.081	1.077	1.079	1.070	1.068	1.071	1.066	1.076	1.052	1.071	1.079	1.074
VOC g/L			13.949	13.525	13.511	13.528	13.569	13.557	13.576	13.538	13.548	13.486	13.534	13.525	13.520