eurofins | Product Testing

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Preliminary VOC Report

14 September 2020

1   Sample Information

Sample name	COLOURS FOR LIFE paint No. 516 / 517
Batch no.	294164
Production date	04/06/2020
Product type	Coating
Sample reception	20/08/2020

The preliminary results are an informal presentation of the VOC results for the initial samplings performed on the chamber. The results may change in the final version of the report.

The final report will be issued no later than: 06/10/2020

Please do not hesitate to call or write if there should be any questions or comments in the meantime.

2   Test Parameters, Sample Preparation and Deviations

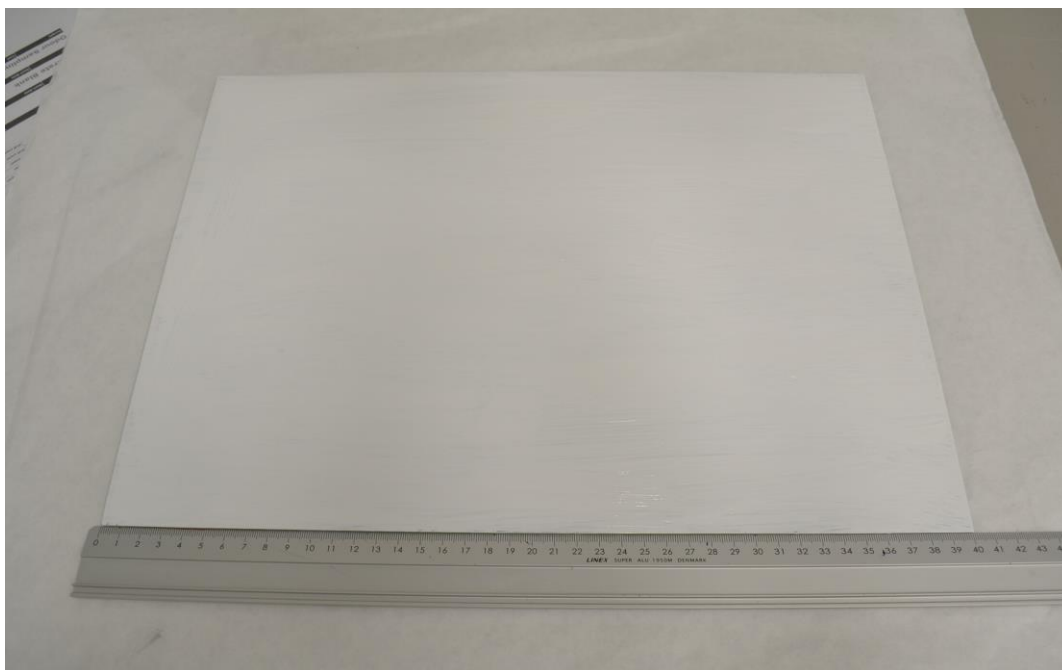### 2.1 VOC Emission Chamber Test Parameters

Parameter	Value	Parameter	Value
Chamber volume, V[L]	119	Preconditioning period	-
Air Change rate, n[h^{-1}]	0.5	Test period	28/08/2020 - 31/08/2020
Relative humidity of supply air, RH [%]	50 ± 3	Area specific ventilation rate, q [m/h or m³/m²/h]	0.5
Temperature of supply air, T [°C]	23 ± 1	Loading factor [m²/m³]	1.0
		Test scenario	Wall

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2.2 Preparation of the Test Specimen

The sample was homogenised and applied onto a glass plate.

Number of Layers	Application amount per layer, g/m^2	Drying time, h
2	100	6

2.3 Picture of Sample

The results are only valid for the tested sample(s).

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3 Results

3.1 VOC Emission Test Results after 3 Days

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D
VOC with NIK/LCI							
1,2-Propandiol (Propylene glycol) *	57-55-6	3.64	1	2500	640	1200	1.2
2-Ethyl-1-hexanol	104-76-7	8.93	1	23	17	12	0.078
Borneol *	507-70-0	10.71	1	6.1	5.9	3.0	0.0044
Butyldiglycol *	112-34-5	10.99	1	29	13	14	0.043
n-Tridecane	629-50-5	12.17	1	18	21	8.9	0.0030
VOC without NIK/LCI							
2-Methyl-2-propenoic acid *	79-41-4	4.53	2	6.3	6.3	3.2	
2-Octanol *	123-96-6	8.52	2	240	240	120	
Not identified *		10.36	4	20	20	10	
Not identified *		10.76	4	7.8	7.8	3.9	
Not identified *		11.35	4	13	13	6.4	
Not identified *		11.79	4	5.5	5.5	2.8	
Not identified *		13.87	4	24	24	12	
Sum of VOC without NIK/LCI				310	310	160	
VVOC compounds							
None determined							
TVVOC				< 5	< 5	< 3	
SVOC compounds							
None determined							
TSVOC				< 5	< 5	< 3	
Carcinogens							
Total carcinogens				< 1	< 1	< 1	
Aldehydes							
Formaldehyde	50-00-0		1	< 3		< 2	
Acetaldehyde	75-07-0		1	< 3		< 2	
Propionaldehyde	123-38-6		1	3.7		1.9	
Butyraldehyde	123-72-8		1	< 3		< 2	
Acrolein *	107-02-8		1	< 5		< 3	
2-Butenal *	123-73-9		1	< 5		< 3	
Glutaraldehyde *	111-30-8		1	< 5		< 3	

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	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D
Octanal *	124-13-0		1	< 5		< 3	
Nonanal *	124-19-6		1	< 5		< 3	
Decanal *	112-31-2		1	< 5		< 3	
R-values							1.3
TVOC				2900	1000	1400	

4 Appendices

4.1 How to Understand the Results

4.1.1 Acronyms Used in the Report

<   Means less than

>   Means bigger than

*   Not a part of our accreditation

¤   Please see section regarding uncertainty in the Appendices

§   Deviation from method. Please see deviation section

a   The method is not optimal for very volatile compounds. For these substances smaller results and a higher measurement uncertainty cannot be ruled out

b   The component originates from the substrate and is thus removed

c   The results have been corrected by the emission from the substrate

d   Very polar organic compounds are not suitable for reliable quantification using Tenax TA adsorbent and HP-5 GC column. A high degree of uncertainty must be expected

e   The component may be overestimated due to contribution from the system

SER   Specific Emission Rate

4.1.2 Explanation of ID Category

Categories of Identity:

1: Identified by comparison with a mass spectrum obtained from library and supported by other information and quantified through specific calibration.

2: Identified by comparison with a mass spectrum obtained from library and supported by other information. Quantified as toluene equivalent.

3: Identified with a lower match by comparison with a mass spectrum obtained from a library. Quantified as toluene equivalent.

4: Not identified, quantified as toluene equivalent.

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