Sika Limited
Miller Street
PR1 1EA Preston
UNITED KINGDOM

Eurofins Product Testing A/S
Smedeskovvej 38
8464 Galten
Denmark

voc@eurofins.com
www.eurofins.com/voc-testing

VOC Emissions Test report

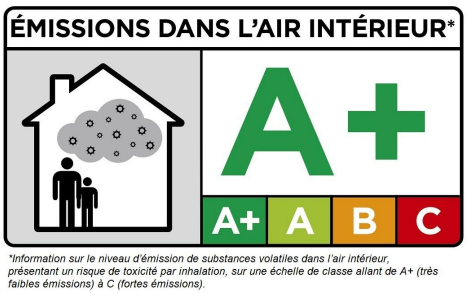
Date
22 December 2014

1. Sample Information

Sample identification	Sikagard -403W
Product type	Paint
Batch no.	-
Production date	06/11/2014
Date when sample was received	11/11/2014
Testing (start - end)	18/11/2014 - 16/12/2014

2. Resulting VOC Emissions Class Label

This recommendation is based on French regulation of March 23, 2011 (décret DEVL1101903D) and of April 19, 2011 (arrêté DEVL1104875A). For details please see www.eurofins.com/france-voc



The product was assigned a VOC emission class without taking into account the measurement uncertainty associated with the result. As specified in French Decree no. 2011-321 of March 23, 2011, correct assignment of the VOC emission class is the sole responsibility of the party responsible for distribution of the product in the French market.

3. Conclusion on CMR emissions

The tested product fulfills the requirements of the French regulation DEVP0908633A of 30 April 2009 and DEVP0910046A of 28 May 2009. For details please see www.eurofins.com/france-voc.

4. Test Method

Method	Principle	Parameter	Quantification limit	Uncertainty
ISO 16000 parts -3, -6, -9, -11 Internal method numbers: 9810, 9811, 9812, 2808, 8400	GC/MS HPLC/UV	VOC Volatile alde-hydes	2 µg/m³ 3 µg/m³	22% (RSD)
ISO 16000 parts -3, -6, -9, -11 Internal method numbers: 9810, 9811, 9812, 2808, 8400, 2616	GC/MS	4CMR	<1 µg/m³	Um = 2 x RSD=45 %

Test chamber parameter					
Chamber volume, l	119	Temperature, °C	23±1	Relative humidity, %	50±3
Air change rate, 1/h	0.5	Loading ratio, m²/m³	1		
Test condition: Sample stayed in test chamber during the whole 28 days testing period.					
Sample preparation					
The sample was homogenised and applied onto a glass plate.					
Application amount, g/m²	360	Number of layers	2	Drying time, h	24

5. Results

	Concentration after 28 days µg/m³	**C**	**B**	**A**	**A+**
TVOC	660	>2000	<2000	<1500	<1000
Formaldehyde	< 3	>120	<120	<60	<10
Acetaldehyde	< 3	>400	<400	<300	<200
Toluene	< 2	>600	<600	<450	<300
Tetrachloroethylene	< 2	>500	<500	<350	<250
Ethylbenzene	< 2	>1500	<1500	<1000	<750
Xylene	< 2	>400	<400	<300	<200
Styrene	< 2	>500	<500	<350	<250
2-Butoxyethanol	< 2	>2000	<2000	<1500	<1000
1,2,4-Trimethylbenzene	14	>2000	<2000	<1500	<1000
1,4-Dichlorobenzene	< 2	>120	<120	<90	<60
CMR compounds		Maximum allowed air concentration			
Benzene	< 1	<1			
Trichloroethylene	< 1	<1			
Dibutylphthalate (DBP) *	< 1	<1			
Diethylhexylphthalate (DEHP) *	< 1	<1			

< Means less than
> Means higher than
* Not a part of our accreditation (EN ISO/IEC 17025:2005) by DANAK (no. 522))

6. Emission test after 28 days of the 10 largest VOC

	CAS No.	Retention time min	ID-Cat.	After 28 days µg/m³	Emission rate µg/(m²*h)	Toluene equivalent µg/m³
Single VOC Substance:						
1-Butanol	71-36-3	2.28	1	8.6	4.3	2.6
Hexylene glycol-(2-methyl-2,4-pentanediol) *	107-41-5	6.92	1	7.0	3.5	3.9
1,2,4-Trimethylbenzene	95-63-6	8.20	1	14	7.2	17
2-methyl-4-isothiazolin-3-on *	2682-20-4	10.62	1	39	19	8.9
Butyldiglycol *	112-34-5	10.79	1	47	24	18
Butyldiglycol acetate *	124-17-4	12.64	1	360	180	360
Not identified *	-	12.73	4	4.3	2.1	4.3
Texanol *	25265-77-4	12.81	1	7.9	3.9	6.2
Not identified *	-	14.03	4	7.1	3.5	7.1
Not identified *	-	14.15	4	140	68	140

* Not a part of our accreditation (EN ISO/IEC 17025:2005) by DANAK (no. 522))

Maria Pelle
Chemist

Janne R. Norup
Chemist