

Emission test report of HEVADEX bv sample “Blowerproof Liquid Brush & Blowerproof Liquid”

Maarten Delputte, Bram Vierstraete, Céline Van Onacker, Gertjan Delanghe, Marc Lor

SPT2023-R012

HEVADEX bv
Spinnerslaan 6
9160 Lokeren
Belgium

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Normec Product Testing is part of the Normec Group. The company focusses on product emission testing and VOC reduction performance testing. The product emission tests analyse the impact of all kinds of building and consumer products and materials on indoor air quality.

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1. OVERVIEW OF THE RESULTS

In the table below is shown to which legislations and/or labels the product complies:

Regulation or protocol	Result
French VOC regulations	

X : not compliant

✓ : compliant

According to the decision rule defined in the contract, for the above statements of conformity the measurement uncertainty was not taken into account.

2. OBJECTIVE/EVALUATION FRAMEWORK

Determination of the volatile organic compound emissions according to the legislations and/or labels listed in the table below:

French VOC regulations	Arrêté du 28 mai 2009 modifiant l'arrêté du 30 avril 2009, Arrêté du 20 février 2012 modifiant l'arrêté du 19 avril 2011, Décret no 2011-321 du 23 mars 2011)
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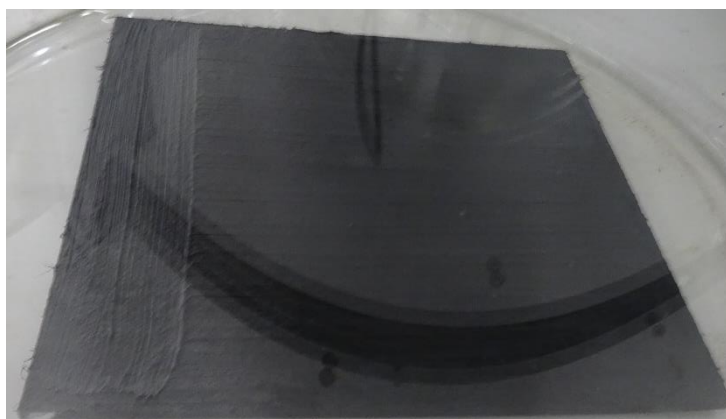
3. SAMPLE INFORMATION

Table 1: Sample information provided by client

Sample identification	Blowerproof Liquid Brush (= Blowerproof Liquid with fibers)
Date of production	14/11/22
Date of sampling	17/11/22
Batch N°	1411218
Type of product	Coating
Article nr.	
Misc.	

Table 2: Sample information provided by Normec Product Testing

Sample group code	SPT2022396
Sample code	SPT20224431
Date of reception of the sample	21/11/2022
Preconditioning period (start – end)	No Preconditioning
Date of the test (start – end)	06/12/2022– 03/01/2023



Photograph 1: test sample Blowerproof Liquid Brush

4. TEST METHODS - ACCREDITATION

The following test methods were used:

- Test chamber was operated according to NBN EN 16516:2017+A1:2020 (ISO 16000-9 with extra clauses): Construction products – Assessment of release of dangerous substances – Determination of emissions into indoor air (internal procedure QM001)
- Analysis of TENAX samples was performed according to NBN EN 16516:2017+A1:2020 (ISO 16000-6 with extra clauses): Construction products – Assessment of release of dangerous substances – Determination of emissions into indoor air (internal procedure QM002)
- Analysis of DNPH cartridges was performed according to NBN EN 16516:2017+A1:2020 (ISO 16000-3): Construction products – Assessment of release of dangerous substances – Determination of emissions into indoor air (internal procedure QM003)
- The test sample preparation was performed according to NBN EN 16516:2017+A1:2020 (ISO 16000-11 with extra clauses): Construction products – Assessment of release of dangerous substances – Determination of emissions into indoor air (internal procedure QM001)

Table 3: Overview of the test method parameters

EN 16516 method	
Analytical methods	analytes
ISO 16000-3	Volatile aldehydes (C1-C4)
ISO 16000-6 + extra clauses	VOC, SVOC
Test chamber parameters	values
Chamber volume (m ³)	0.062
Air exchange rate (h ⁻¹)	0.5
Temperature (°C)	23 ± 1
Relative humidity (%)	50 ± 5
Loading factor (m ² /m ³)	1.0
Sample preparation	
Dimensions (m ²)	0.25 x 0.25
Application amount (g)	Layer 1: 31.04 Layer 2: 30.98
Preparation of test specimen	- Sample is prepared on a glass plate - Drying time between layers is 4 h

Normec Product Testing is an accredited laboratory according to EN ISO/IEC 17025 (BELAC 633-TEST) for the internal procedures QM001, QM002 and QM003. At present the accreditation does not cover the compounds marked with *, however analysis for these compounds was performed at the same level of quality as for the accredited compounds. The analytical measurement uncertainty (expanded uncertainty) for volatile aldehydes amounts to maximum 15 % and 30 % for the other target compounds. The total measurement uncertainty amounts to maximum 30 % for all compounds.

5. EVALUATION OF THE RESULTS

5.1. COMPARISON WITH LIMIT VALUES OF FRENCH LEGISLATION

Compound ¹	CAS number	id ²	Conc. (µg/m ³)	Classification Fr	Criteria C (µg/m ³)	Criteria B (µg/m ³)	Criteria A (µg/m ³)	Criteria A ⁺ (µg/m ³)
Formaldehyde	50-00-0	1	< 1	A ⁺	>120	<120	<60	<10
Acetaldehyde	75-07-0	1	< 1	A ⁺	>400	<400	<300	<200
Toluene	108-88-3	1	< 1	A ⁺	>600	<600	<450	<300
Tetrachloroethylene	127-18-4	1	< 1	A ⁺	>500	<500	<350	<250
Ethylbenzene	100-41-4	1	< 1	A ⁺	>1500	<1500	<1000	<750
Xylene	1330-20-7	1	< 1	A ⁺	>400	<400	<300	<200
Styrene	100-42-5	1	4	A ⁺	>500	<500	<350	<250
2-Butoxyethanol	111-76-2	1	< 1	A ⁺	>2000	<2000	<1500	<1000
1,2,4-Trimethylbenzene	95-63-6	1	< 1	A ⁺	>2000	<2000	<1500	<1000
1,4-Dichlorobenzene	106-46-7	1	< 1	A ⁺	>120	<120	<90	<60
Trichloroethylene	79-01-6	1	< 1	A ⁺				
Benzene	71-43-2	1	< 1	A ⁺				
Bis(2-ethylhexyl) phthalate*	117-81-7	1	< 1	A ⁺				
Dibutyl phthalate*	84-74-2	1	< 1	A ⁺				
TVOC		2	220	A ⁺	>2000	<2000	<1500	<1000

No CMR compounds detected.

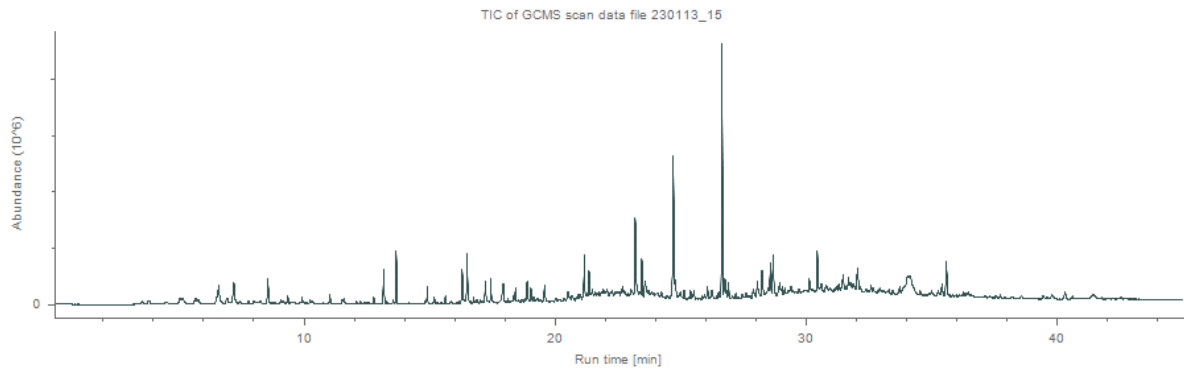
¹ Compounds marked with an * are not part of the accreditation

² Identification/quantification:

- 1: identification by standard solution and retention time, confirmed by spectrum library and specifically calibrated
- 2: identification by comparison with spectrum library and plausibility declaration, calibrated as toluene equivalent
- 3: not identified, calibrated as toluene equivalent

6. CHROMATOGRAMS

28 days



7. AUTHORISATION OF REPORT

This report contains the results of samples, analysed within the scope of a study ordered by HEVADEX bv (Spinnerslaan 6; 9160 Lokeren; Belgium). It relates to the sample(s) with the following Normec Product Testing - identification:

Sample monster codes belonging to sample group SPT2022396	
From	To
SPT20224431	SPT20224431

Normec Product Testing is an accredited laboratory according to EN ISO/IEC 17025 (BELAC 633-TEST) for the internal procedures QM001, QM002 and QM003.

The laboratory is not responsible for the accuracy of the information provided by the customer (see Table 1). The analytical results in this research report only relate to the samples analysed. Interpretations, advice and other not merely objective information are not covered by the EN ISO/IEC 17025 accreditation. Further information on measurement uncertainty and sample preservation will be provided upon request.

Dates of analysis:

- DNPH: 11/01/2022
- Tenax: 13/01/2022

This research report consists of 10 numbered pages, and the signature below confirms the authorisation of the analytical results according to EN ISO/IEC 17025.



M. Lor
Managing Director Normec Product Testing