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VOC/SVOC TEST REPORT

VOC/SVOC Content

25 July 2024

1 Sample Information

| | |
|------------------------|-------------------|
| Sample name | Grafclean |
| Sample no. | 392-2024-00046202 |
| Stated production date | 24/05/2024 |
| Batch No. | 17.327 |
| Sample reception | 18/06/2024 |

2 Brief Evaluation of the Results

| Regulation or protocol | Conclusion | Version of regulation or protocol |
|--------------------------------------|------------|---|
| Decopaint | Pass | Directive 2004/42/CE |
| EU Ecolabel for paints and varnishes | Pass | Commission decision 2014/312/EU of 28 May 2014, criteria for the award of EU Ecolabel for indoor and outdoor paints and varnishes |

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix



Rasmus Verdier
Analytical Service Manager

3 Applied Test Methods

3.1 General Test References

| Regulation, protocol or standard | Scope | Version |
|--------------------------------------|----------------------|---------------------------------|
| Decopaint | Paints and varnishes | Directive 2004/42/CE |
| EU Ecolabel for paints and varnishes | Paints and varnishes | Commission decision 2014/312/EU |

3.2 Specific Laboratory Sampling and Analyses

| Test | Regulation, protocol or standard | Version | Internal SOP | Limit of detection | Uncertainty $U_{m\pm}$ |
|-----------|----------------------------------|---------|--------------|--------------------|------------------------|
| | | | | [g/L] | % |
| VOC/SVOC | ISO 11890-2 | 2020 | 71 M 546002 | 0.05 | 20 |
| Density * | Internal method | - | 71 M 543130 | - | 10 |

4 Results

4.1 Results Used in Calculation

| | Remarks on the test results | Results | Unit |
|-----------|-----------------------------|---------|------|
| Density * | Tested by the lab | 1.52 | g/mL |

4.2 Total VOC Content

| | CAS No. | Results | Unit |
|----------------|---------|---------|------|
| Unidentified * | - | 0.20 | g/L |
| Unidentified * | - | 0.28 | g/L |
| VOC content | - | 0.48 | g/L |

4.3 Total SVOC Content

| | CAS No. | Results | Unit |
|----------------|---------|---------|------|
| Unidentified * | - | 1.4 | g/L |
| SVOC content | - | 1.4 | g/L |

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).

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4.4 Comparison with Limit Values of VOC Content

| Parameters | Results [g/L] | Product type | Regulation or protocol | VOC limit [g/L] |
|---------------------|------------------|----------------------------------|------------------------|--------------------|
| VOC content | 0.48 | Interior matt walls and ceilings | Decopaint | 30 |
| | | | EU Ecolabel | 10 |
| SVOC content | 1.4 | Interior matt walls and ceilings | EU Ecolabel | 30 |

5 Appendices

5.1 How to Understand the Results

5.1.1 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
- 1 Analysed by another Eurofins laboratory

5.2 Description of VOC/SVOC Content Test

5.2.1 Testing of VOC/SVOC (ISO 11890-2)

Volatile Organic Compounds (VOC) include all organic compounds with an initial boiling point less than or equal to 250 °C measured at standard pressure of 101.3 kPa.

Semi-Volatile Organic Compounds (SVOC) include all organic compounds with an initial boiling point greater than 250 °C and less than 370 °C measured at standard pressure of 101.3 kPa.

The determination is performed in conformity with ISO 11890-2 and the commission decision 2014/312/EU of 28 May 2014 establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes, with its most recent amendments and its most recent User Manual.

Analyses are performed with a slightly polar gas chromatographic column (HP-5). Mass spectrometric detection is used for identification and flame ionization detector is used for quantification. Identified compounds are quantified with their authentic response factors, or with their relative response factors using 1,2-diethoxyethane as internal standard. Remaining unknown peaks are quantified in diethyl adipate equivalents.

5.2.2 Testing of Density

The density was calculated using gravimetric and volumetric determination. The result is the average of three determinations.

5.3 Uncertainty of the Test Method

Um(%): The expanded uncertainty Um is equal to 2 x RSD%.

5.4 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the "Binary Statement for Simple Acceptance Rule" described in ILAC's "Guidelines on decision Rules and Statements of Conformity" ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

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5.5 Version History

| Report date | Report number | Modification |
|-------------|-------------------------|-----------------|
| 25/07/2024 | 392-2024-00046202_XG_EN | Current version |