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Braunschweig, 03.03.2017

# Test report No. MAIC-2017-0966

**Customer:** RIF Ametist Ltd, Roshal, Moscow Region.

**Object of the test:** Chamber emission test of a foam sample.

**Contents:**



This report comprises 4 pages.

## Sample description:

| WKI no. | Date of reception | Sample Name (this information is provided by the customer) | Product No. | Manufacturer-Code | Date-Stamp |
|---|---|---|---|---|---|
| P59025 | 24.02.2017 | ST2336I | 352 | RIF Ametist | n.a. |

(Sample P59025: aluminum foil/wrapped separately, wrapping ok)

Notice: Sample material will be stored for 2 months after test report date. Please contact us if an extended storage time is required or if sample material needs to be returned. Sample material for emission tests cannot be retained for repeated tests, it will only be stored for identification and documentation purposes.


## Methods:

### Chamber emission test:

The sample was tested in the emission test chamber without prior conditioning. After defined times samples of the chamber air were collected on sorbent tubes (Tenax TA) and analyzed on a thermal desorption-GC/MS system. Compounds were identified using MS-Spectra libraries, quantification was done using pure reference compound mixtures. The described method covers volatile organic compounds from C5 to C22 and has a limit of determination of approx. 1 µg/m³. Substances in the range of C6 to C16 are reported as VOC, the more volatile ones as VVOC and those eluting after C16 as SVOC. The measurements were performed according to DIN EN ISO 16000 part 6, 9 and 11.

## Results:

The quantitative test results can be found on the next page.

**Results of the chamber emission test of sample P59025 (ST2336I)**

| CAS-No. | Substance | Concentration in µg/m³ after 5h* | 24h | 48h | Info |
|---|---|---|---|---|---|
| 000071-36-3 | n-Butanol | | 8 | < 1 | bd |
| | Ketone (Toluene) | | 1 | < 1 | |
| 000141-32-2 | Butyl acrylate | | 10 | 2 | bd |
| 000590-01-2 | Butyl propionate | | 2 | < 1 | |
| 000109-21-7 | Butyl butyrate | | 1 | < 1 | |
| | Sum VVOC (< C6): | | < 1 | < 1 | |
| | Sum VOC (C6-C16): | | 22 | 2 | |
| | Sum SVOC (> C16): | | < 1 | < 1 | |
| | TVOC Toluene equivalents (ISO 16000-6) : | | < 1 | < 1 | |

(The fragments/substances shown in subscript were used for the quantification.)
Additional information: **a** acute toxic substance cat. 1+2+3 (acc. UN-GHS/CLP); **b** German LCI list; **c** safe sampling volume too low, underestimation likely; **d** odor relevant; **e** compound boiling point exceeds thermal limit of the TDS unit – underestimation likely; **f** terpene, possibly wood-related; **g** chronic toxic substance CMR cat. 1A+1B (acc. UN-GHS/CLP); **h** aromatic solvent IOS-MAT-0054; **i** chlorinated solvent IOS-MAT-0054; **l** specific target organ toxic substance STOT RE1+SE1 (acc. UN-GHS/CLP); **p** listed in Proposition 65; **<C6** VVOC compound; **>C16** SVOC compound.

* Due to technical reasons the 5h-value could not be evaluated.

The TVOC Toluene equivalents has no requirement level and is reported solely for information purposes.

**Parameters of the emission chamber test:**

Chamber type: 1m³-stainless steel chamber 15

Climatic conditions: 23 °C, 50 % r.h.

**Air exchange: 0.58 $h^{-1}$**

**Loading factor: 0.58 $m^2/m^3$**

Test started: 27.02.2017 08:38:02

Sampling: Tenax TA

Analysis: Thermal desorption GC/MS


Photo of the tested sample part.

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**Evaluation according to IOS-MAT 0010 (Ver. AA-10911-13)**

| Substance class | Present | | Level | | | | |
|---|---|---|---|---|---|---|---|
| | Yes | No | Traces | Low | Moderate | High | Very high |
| Emission of volatile organic compounds<br>Compounds: Butyl acrylate. | ☒ | ☐ | ☒ | ☐ | ☐ | ☐ | ☐ |
| Emission of odor relevant compounds<br>Compounds: n-Butanol, butyl acrylate. | ☒ | ☐ | ☒ | ☐ | ☐ | ☐ | ☐ |
| Emission of toxic compounds<br>Compounds: | ☐ | ☒ | ☐ | ☐ | ☐ | ☐ | ☐ |

| | Evaluation after: 48 hours | |
|---|---|---|
| Sum of VOC requirements[1] [≤ 1.2 mg/m³] fulfilled? | ☒Yes | ☐No |
| Acute toxic/STOT VOC[2] requirements[3] fulfilled? | ☒Yes | ☐No |
| Chronic toxic VOC[2] requirements[3] fulfilled? | ☒Yes | ☐No |

[1] according to IOS-MAT-0010; [2] according to EG-GHS-regulation; [3] ≤ 10 µg/m³ individual CMR-substance cat. 1A+1B and ≤ 50 µg/m³ sum of all CMR-substances cat. 1A+1B and ≤ 30 µg/m³ each individual acute toxic substance class 1+2+3 and specific target organ toxic substance class RE1+SE1.

**Remarks:** The sample material was a weak source of volatile organic compounds (VOC). The odorous compounds n-butanol and butyl acrylate were detected in trace concentrations.

Officer in Charge

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For the department

Dr. E. Uhde