eurofins | STATS

**Eurofins Stats Asia Pacific Pte Ltd**
71 Toh Guan Road East, #02-01
TCH Techcentre Singapore 608598
Co Reg No. | GST No: 201716604R

T | (65) 6252 6686
F | (65) 6252 6166
Email: Sales_Stats@eurofinsasia.com

# TEST REPORT

(This report is issued subject to the terms & conditions set out below)



| | | |
|---|---|---|
| **Your Ref:** | 4504805213-G58 | **Date: 28/10/2025** |
| **Our Ref:** | **CHEM-25-04184-2** | |
| **Subject:** | Analysis on sample submitted by Knauf Vietnam Co., Ltd on 14/08/2025 and test commenced on 14/08/2025. | |
| **Tested For:** | **Knauf Vietnam Co., Ltd**<br>Headoffice Ho Chi Minh City<br>35 Nguyen Hue Street, Ben Nghe Ward, District 1<br>HO CHI MINH CITY 700000, VIETNAM<br>**Attention: Thong Nguyen** | |
| **Sample Description:** | **StandardShield 9mm & 12.7mm** | |

| No. | Test Parameter | Test Method | Unit | Result | Reporting Limit |
|---|---|---|---|---|---|
| 1) | Asbestos | ISO 22262-1: 2012 / PLM Method | % | N.D. | 0.1 |
| 2) | ***Test Chamber Parameters***<br>*Temperature: 23 ± 2 °C*<br>*Relative Humidity: 50 ± 5%*<br>*Chamber Air Exchange Rate: 0.88*<br>*Chamber Loading Factor: 1.0*<br>**10 days pre-conditioning and followed by 24, 48 & 96hrs sampling and testing** | | | | |
| | Volatile Organic Compounds (VOCs) Emission<br>*(A Toluene)*<br>*(24,48 & 96 Hours)* | In accordance with CDPH V1.2 Test Method | $mg/m^3$ | N.D. | 0.05 |

| Notes: | N.D. - Not Detected (< Reporting Limit) |
|---|---|
| | For VOCs Emission target compound at total 14 days, refer to the appendix. |

**Conclusion:** The product has been tested according to CDPHv1.2-2017 and complies with the VOC limits in Table 4-1. The range of TVOC after 14 days (336 hours) is reported at 0.5 mg/m3 or less.

Signed for and on behalf of Eurofins Stats Asia Pacific Pte Ltd

LEI ZHI PEI
DIRECTOR

EUROFINS STATS ASIA PACIFIC PTE. LTD. UEN: 201716604R

Terms & conditions:

1) This Report is prepared based on the sample received/ analysed, the services requested by the Client and the conditions under which Services are performed by Eurofins Stats. This Report is not a representative of similar or equivalent Services on similar or equivalent items. The Report does not represent an endorsement by Eurofins Stats of the item.
2) Eurofins Stats will use reasonable diligence in the Services performed but no warranties are given and done may be applied to the Services, the Report or the facilities of Eurofins Stats whether directly or indirectly.
3) Eurofins Stats forbid the use of this Report in any publicity material, unless consented in writing by Eurofins Stats.
4) Eurofins Stats forbid the reproducing in part or in full of this Report, unless given approval by Eurofins Stats in writing.
5) Eurofins Stats shall not be liable for any direct or indirect loss or damage suffered by the Client or its agents, servants or representative, in contract, tort (including negligence or breach of statutory duty) or otherwise, whether arise or connected with the Services provided by Eurofins Stats to the Client.

## Summary and Evaluation of the Results

### Comparison with Limit Values of CDPH

| Parameter | Test After 14 Days | | | |
|---|---|---|---|---|
| | SER in Test Chamber µg/(m²h) | Concentration in Classroom [µg/m³] | Concentration in Office Room [µg/m³] | ½ CREL [µg/m³] |
| **TVOC** | < 50 | < 25 | < 80 | - |
| **Single compounds** (With Defined CREL Values) **Toluene** | < 1 | < 1 | < 2 | 150 |
| **Formaldehyde** | < 2 | < 1 | < 4 | < 9 |

### Conversion of Emission Rates to CDPH Reference Room Concentrations

The CDPH method requires calculation of the measured emission rates into concentrations in given reference rooms. The equation and parameters figured below have been applied to calculate the concentrations in an office room or a classroom as required in the CDPH. The area used in the calculation varies depending on the expected usage of the product and therefore several entries can be found. Small and Very Small areas are not provided within the CDPH but are adapted from definitions given in EN 16516 and ISO 16000-9.

$$C_{Calculated} = \frac{SER_A \cdot A}{n \cdot V}$$

| | | Classroom Parameters | Office Room Parameters |
|---|---|---|---|
| n | Air Change, $h^{-1}$ | 0.82 | 0.68 |
| V | Volume of Reference Room, $m^3$ | 231 | 30.6 |
| A | Walls Area, $m^2$ | 94.3 | 33.4 |

EUROFINS STATS ASIA PACIFIC PTE. LTD. UEN: 201716604R

CHEM-25-04184-2

# Appendix

**Table 4-1** Target CREL VOCs and their maximum allowable concentrations

| No. | Compound Name | CAS No. | Allowable Conc.[a] ($\mu g/m^3$) | Results |
|---|---|---|---|---|
| 1 | Acetaldehyde | 75-07-0 | 70 | N.D. |
| 2 | Benzene | 71-43-2 | 1.5 [b] | N.D. |
| 3 | Carbon disulfide | 75-15-0 | 400 | N.D. |
| 4 | Carbon tetrachloride | 56-23-5 | 20 | N.D. |
| 5 | Chlorobenzene | 108-90-7 | 500 | N.D. |
| 6 | Chloroform | 67-66-3 | 150 | N.D. |
| 7 | Dichlorobenzene (1,4-) | 106-46-7 | 400 | N.D. |
| 8 | Dichloroethylene (1,1) | 75-35-4 | 35 | N.D. |
| 9 | Dimethylformamide (N,N-) | 68-12-2 | 40 | N.D. |
| 10 | Dioxane (1,4-) | 123-91-1 | 1,500 | N.D. |
| 11 | Epichlorohydrin | 106-89-8 | 1.5 | N.D. |
| 12 | Ethylbenzene | 100-41-4 | 1,000 | N.D. |
| 13 | Ethylene glycol | 107-21-1 | 200 | N.D. |
| 14 | Ethylene glycol monoethyl ether | 110-80-5 | 35 | N.D. |
| 15 | Ethylene glycol monoethyl ether acetate | 111-15-9 | 150 | N.D. |
| 16 | Ethylene glycol monomethyl ether | 109-86-4 | 30 | N.D. |
| 17 | Ethylene glycol monomethyl ether acetate | 110-49-6 | 45 | N.D. |
| 18 | Formaldehyde | 50-00-0 | 9 [c] | N.D. |
| 19 | Hexane (n-) | 110-54-3 | 3,500 | N.D. |
| 20 | Isophorone | 78-59-1 | 1,000 | N.D. |
| 21 | Isopropanol | 67-63-0 | 3,500 | N.D. |
| 22 | Methyl chloroform | 71-55-6 | 500 | N.D. |
| 23 | Methylene chloride | 75-09-2 | 200 | N.D. |
| 24 | Methyl *t*-butyl ether | 1634-04-4 | 4,000 | N.D. |
| 25 | Naphthalene | 91-20-3 | 4.5 | N.D. |
| 26 | Phenol | 108-95-2 | 100 | N.D. |
| 27 | Propylene glycol monomethyl ether | 107-98-2 | 3,500 | N.D. |
| 28 | Styrene | 100-42-5 | 450 | N.D. |
| 29 | Tetrachloroethylene | 127-18-4 | 17.5 | N.D. |
| 30 | Toluene | 108-88-3 | 150 | N.D. |
| 31 | Trichloroethylene | 79-01-6 | 300 | N.D. |
| 32 | Vinyl acetate | 108-05-4 | 100 | N.D. |
| 33-35 | Xylenes, technical mixture (m-, o-, p-xylene combined) | 108-38-3, 95-47-6, 106-42-3 | 350 | N.D. |

Notes: N.D. – Not Detected

EUROFINS STATS ASIA PACIFIC PTE. LTD. UEN: 201716604R