VOC EMISSION TEST REPORT

EUROPHON ACOUSTICS TRADING L.L.C

Report No: WD-R-240826-0435
Sample No: WD-S-240826-0381
Date of Report: 18/09/2024.

Introduction: As per the request received from **M/s. EUROPHON ACOUSTICS TRADING L.L.C** on 26th August 2024, the sample of Sealant was tested for the below parameters.

1. Sample Information

Manufacturer	M/s. ECI Acoustic Spray
Request Number	WD-Q-240826-0133
Product Description	Acoustic Callouses Spray Sample
Product Reference	-
Date of Sample collection	26/08/2024
Tested By	MR
Testing Period	27/08/2024-18/09/2024

2. Evaluation of the Results

- VOC measurements determining the suitability of a product are made after the specimen has been exposed for a total of 14 days as per CDPH Standard Method V1.2. 2017.
- For general emission evaluation, private office scenario/School classroom scenario used as per CDPH guidelines.

Test	Method	Unit	Average
TVOC	CDPH Standard Method V1.2 U.S. EPA Methods TO17	mg/m^3	<0.01
Individual VOC		$\mu g/m^3$	Not detected*
Formaldehyde	CDPH Standard Method V1.2 ASTM D5197-03	$\mu g/m^3$	Not detected*
Total Aldehydes		$\mu g/m^3$	Not detected*

*Note: LOD of the test method is 1 $\mu g/m^3$. Below LOD is considered as 'Not detected' or 'Nil'.

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3. Test Method

Sample preparation, Environmental Chamber operation, sampling and analysis followed the California Department of Public Health "Standard method for the testing and evaluation of volatile organic chemical emissions from indoor sources using environmental chambers version 1.2, January 2017, per the acceptable alternative detailed in Section 8.5 therein.

Test Chamber Parameters

Chamber Volume	: 0.65 m^3
Temperature	: 23±1 °C
Relative Humidity	: 50±5 %
Area of test specimen	: 0.12 m^2
Air exchange rate, 1/h	: 1±0.05
Loading Ratio	: 0.185 m^2/m^3

Sample Preparation

The test was started on 27st August 2024; by unpacking the sample. The test specimen was placed in a separate conditioning container in a room with controlled climate conditions of 23±1˚C and 50±5% RH.

After 10 days of conditioning the specimen was placed in an emission chamber of stainless steel.

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Analytical methods and Reporting limits#

Analytical method	Instrumentation	Parameter	Reporting limit
USEPA TO17	GC/MS/HS	Individual VOC	1µg/m^3
USEPA TO17	GC/MS/HS	TVOC	0.01mg/m^3
ASTM D5197	HPLC/UV	Low molecular weight aldehydes	1µg/m^3

#Deviation from the test method: Followed section 8.5 acceptable alternative sampling scheme.

TVOC defined as C_6-C_{16}.

1. Test Results

4.1. Measured Emissions after 11th day. (24 Hrs. after conditioning.)

Compound	CAS No.	Chamber Concentration (µg/m^3)	Emission rate (µg/m^2*h)
TVOC (C_6-C_{16})	-	<10	<10
Formaldehyde	50-00-0	Not detected*	Not detected*

4.2. Measured Emissions after 12th day. (48 Hrs. after conditioning.)

Compound	CAS No.	Chamber Concentration (µg/m^3)	Emission rate (µg/m^2*h)
TVOC (C_6-C_{16})	-	<10	<10
Formaldehyde	50-00-0	Not detected*	Not detected*

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4.3. Measured Emissions after 14th day. (96 Hrs. After conditioning.)

TVOC and Complete characterization of TVOC

Compound	CAS No.	Chamber concentration ($\mu g/m^3$)	Emission rate ($\mu g/m^2*h$)	Allowable concentration UL 2818 (mg/m^3)	Compliance of emission result			
					CREL	CA Prop 65	CARB TAC	UL 2818
TVOC (C_6-C_{16})	-	<10	<10	0.5[u]	-	-	-	✓

Carcinogenic VOCs compounds classified under category 1A & 1B regulation EC. No 1272/2008 listed as per below

Compounds	CAS No.	Chamber concentration ($\mu g/m^3$)	Emission rate ($\mu g/m^2*h$)	Allowable concentration CREL ($\mu g/m^3$)	Compliance of emission result			
					½CREL	CA Prop 65	CARB TAC	UL 2818
Acetaldehyde	75-07-0	Not detected*	Not detected*	70	✓	✓	✓	
Formaldehyde	50-00-0	Not detected*	Not detected*	9	✓	✓	✓	✓
Benzene	71-43-2	Not detected*	Not detected*	1.5	✓	✓	✓	
Chlorobenzene	108-90-7	Not detected*	Not detected*	500	✓	✓	✓	
Chloroform	67-66-3	Not detected*	Not detected*	150	✓	✓	✓	
Ethyl Benzene	100-41-4	Not detected*	Not detected*	1000	✓	✓	✓	
Isophornone	78-59-1	Not detected*	Not detected*	1000	✓	✓	✓	✓
Iso Propanol	67-63-0	Not detected*	Not detected*	3500	✓	✓	✓	
Phenol	108-95-2	Not detected*	Not detected*	100	✓	✓	✓	
Toluene	108-88-3	Not detected*	Not detected*	150	✓	✓	✓	
Xylenes	108-38-3 95-47-6 106-42-3	Not detected*	Not detected*	350	✓	✓	✓	

*Note: LOD of the test method is 1 $\mu g/m^3$. Below LOD is considered as 'Not detected' or 'Nil'.

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2. IAQ Modeling; Private office

The CDPH method requires calculation of the measured emission rates into concentrations in given Reference rooms.

Scenario	Standard office	Resulting VOC (µg/m2*hr)	Limit (µg/m2*hr)
Area specific emission rate, µg/(m²h) obtained	<10	<10	694
Air change, h^{-1}	0.68		
Volume of reference room,m^3	30.6		
Total Surface area	47.93		
ASHRAE Outdoor air flow rate	20.7		

Categories of Identify:

1. Identified and quantified with authentic standard via HPLC/UV analysis.
2. Identified and quantified with authentic standard via GC/MS analysis.
3. Identified by comparison with a mass spectrum obtained from library, match quality ≥90%. Quantified using toluene as a surrogate compound.
4. Tentatively identified by comparison with a mass spectrum obtained from library, match quality ≥75% and <90%. Quantified using toluene as a surrogate compound.
5. Potential identification by comparison with a mass spectrum obtained from library, match quality <75%. Quantified using toluene as a surrogate compound.
6. CREL- CRELs are inhalation concentrations to which the general population, including sensitive individuals, may be exposed for long periods (10 years or more) without the likelihood of serious adverse systemic effects (excluding cancer).
7. CARB TAC - The TAC list includes all substances on the EPA list of Hazardous Air Pollutants plus additional compounds.
8. CA Prop 65- lists of known or probable human carcinogens and reproductive/developmental toxins

3. Test conclusion

1. Based on the above test result, Total volatile organic component (TVOC) emission is in compliance with the emission limits as per UL 2818.
2. Test results for individual components are in compliance with CDPH –CREL VOC regulation.

Signed for and on behalf of Wimpey Laboratories LLC

Arya Rajeev
Senior Chemist-Specialty

Test results relate only to the samples tested.
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