

Project: _____ Date Submitted: _____

Sub-Contractor: _____ Spec Section: _____

Contact: _____ Email: _____ Phone: _____

Material / Product Name: _____ Mat. / Prod. Cost: _____ ☐ Actual ☐ Estimated

1 ENVIRONMENTAL PRODUCT DECLARATION (EPD)

EPD attached ☐ No ☐ Yes

EPD is available for this material/product: ☐ No ☐ Yes (if yes, continue filling out section)

EPD Program Operator: _____

EPD Type: ☐ Industry-wide generic Type III ☐ Product-specific Type III ☐ Product-specific, self-reported with cradle-to-gate scope

2 SOURCING OF RAW MATERIALS

Supporting documentation attached ☐ No ☐ Yes

Manufacturer has a Corporate Social Responsibility (CSR) Report: ☐ No ☐ Yes (if yes, continue filling out section)

CSR Report Type: ☐ Manufacturer Declared ☐ Third Party Verified

Leadership Extraction Practices (check all that apply)

☐ Extended Producer Responsibility Program (EPR) participant

EPR Program: _____ EPR Program % Responsibility: _____

☐ Bio-based product meets Sustainable Agriculture Network (SAN) Standard. Bio-based %: _____

☐ FSC certified wood product. Certified %: _____ FSC Chain of Custody Certificate #: _____

☐ Recycled content within product. Pre-consumer % (by weight): _____ Post-consumer % (by weight): _____

☐ Salvaged, refurbished, or reused product. % (by weight): _____

☐ Entire product is sourced regionally within 100 miles of project site (list City/State as location)

a) Extraction location: _____ Total miles: _____

b) Manufacture location: _____ Total miles: _____

c) Purchase location: _____ Total miles: _____

3 MATERIALS INGREDIENTS

Supporting documentation attached ☐ No ☐ Yes

Product has a Chemical Ingredients Inventory (CII) list: ☐ No ☐ Yes (if yes, continue filling out section)

CII Report Type: ☐ ANSI/BIFMA e3 Furniture Sustainability Standard ☐ Globally Harmonized System (GHS)
☐ Cradle-to-Cradle ☐ GreenScreen (GS)
☐ Declare ☐ Health Product Declaration (HPD)
☐ Facts — NSF/ANSI 336 ☐ Product Lens

Product uses a Material Ingredient Optimization (MIO) system: ☐ No ☐ Yes (if yes, continue filling out section)

MIO System: ☐ Cradle-to-Cradle v2 Gold or v3 Silver ☐ GreenScreen v1.2
☐ Cradle-to-Cradle v2 Platinum or v3 Gold/Platinum ☐ REACH Optimization

4 LOW-EMITTING MATERIALS

Supporting documentation attached ☐ No ☐ Yes

Material is applied on-site, within building weather barrier: ☐ No ☐ Yes (if yes, continue filling out section)

Product is an inherently non-emitting source: ☐ No (if no, continue filling out section) ☐ Yes

Source Category: ☐ Ceilings, Wall, or Insulation ☐ Flooring ☐ Interior Adhesive & Sealants
☐ Composite Wood ☐ Furniture ☐ Interior Paint or Coating

VOC Emission Requirements (check all that apply)

Product meets California Department of Public Health (CDPH) Std Method v1.1-2010: ☐ No ☐ Yes

Emission Certifications: ☐ Berkeley Analytical ClearChem ☐ RFI FloorScore
☐ CDPH High Performance Product ☐ SCS Indoor Advantage GOLD
☐ CRI Green Label Plus ☐ Self-reported
☐ Intertek ETL Environmental VOC/VOC+ ☐ UL Greenguard GOLD
☐ MAS Certified Green

Range of TVOCs after 14 days: ☐ 0.5 mg/m³ or less ☐ between 0.5 and 5.0 mg/m³ ☐ 5.0mg/m³ or more

VOC Content Requirements (check all that apply)

☐ ANSI / BIFMA Std Method M7.1-2010 (Furniture) ☐ SCAQMD Rule 1113 (Interior Paint or Coating)
☐ CARB ULEF or NAUF (Composite Wood) ☐ SCAQMD Rule 1168 (Interior Adhesive & Sealants)

Product Type: _____ Allowable VOC Content (g/L): _____ VOC Content (g/L): _____

Total Volume Purchased (L): _____

This Low-Emitting Materials product contains lead: ☐ No ☐ Yes

This Low-Emitting Materials product contains intentionally added Cadmium: ☐ No ☐ Yes

Does submitted material contain lead? ☐ No ☐ Yes

Does submitted material contain PVC? ☐ No ☐ Yes

Does submitted material contain tropical or virgin hardwood? ☐ No ☐ Yes



1550 37th Street, NE
Cleveland, TN 37312

AIRL Project: 292537

Brent Bergherm
Spray-Lock Concrete Protection, Inc.
5959 Shallowford Road, Suite 405
Chattanooga, TN 37421

Subject: Project 292437 - Test Results

Thank you for choosing AIRL, Inc. and its ISO/IEC 17025 accredited testing laboratory, for your analytical needs. Spray-Lock's product "SCP327" was tested by our laboratory for low emitting materials.

Testing was conducted in small environmental chambers following the principles of ASTM D 5116 with the defined product specific test protocols and IAQ emission requirements of the State of California's Indoor Air Quality Program, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers" (aka CA Section 01350).

Calculations were performed using the parameters below to estimate the concentrations of VOCs of concern for use in a classroom environment and in an office environment.

Ventilation Rate	Room Volume	Product Surface Area
CLASSROOM		
0.82 air changes per hour (ACH)	12.2 m x 7.32 m x 2.59 m = 231 m ³ (40 x 24 x 8.5 ft = 1,080 ft ³)	119 m
PRIVATE OFFICE		
0.68 air changes per hour (ACH)	3.66 m x 3.05 m x 2.74 m = 30.6 m ³ (12 x 10 x 9 ft = 1,080 ft ³)	37.8 m

The product mentioned above as received and tested meets the Section 1350 requirements for use in a classroom and in an office with the above parameters.

If you have any questions or concerns about the test results, please contact Roy Patterson at (423) 476-7766.

Sincerely,

Roy Patterson
Chemistry Laboratory Director

This report shall not be reproduced, except in full, without permission from AIRL. Results contained within this report only apply to the actual product tested under the testing conditions documented in this report.

VOC EMISSION RESULTS COMPARISON TO STANDARD

Standard referenced: CDPH/EHLB/Standard Method V1.2 (January 2017) "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers" (aka CA Section 01350).


PRODUCT SAMPLE INFORMATION

Manufacturer:	Spray-Lock Concrete Protection
Product Description:	SCP 327
Product Type:	Protective Sealants
Sample Identification:	AIRL 292347
Manufactured Date:	07/17/2016
Test Completed on:	09/09/2016
Expiration Date:	07/17/2021

TEST RESULTS COMPARISON TO STANDARD CRITERIA

Environment:	CLASSROOM		OFFICE	
Surface Area:	119 m		37.8 m	
Criterion:	Criterion	Meets?	Criterion	Meets?
Individual VOC:	≤ 1/2 REL	Yes	≤ 1/2 REL	Yes
Formaldehyde:	≤ 9.0 ug/m ³ 0	Yes	≤ 9.0 ug/m ³	Yes

Environment:	CLASSROOM		OFFICE
Surface Area:	119 m		37.8 m
TVOC:	0.5 mg/m ³ or less		0.5 mg/m ³ or less

Reviewed By	 Roy Patterson Chemistry Laboratory Manager
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TVOC comparison is based on LEED BD+C: New Construction v4 (LEED v4), Indoor environmental quality (EQ) category/Low-emitting materials credit/Emissions and content requirements/General emissions evaluation.
<http://www.usgbc.org/node/2614095?return=/credits/new-construction/v4/indoor-environmental-quality>

Disclaimer: This Comparison affirms that: 1) the product sample was tested according to the referenced standard; 2) the measured VOC emissions were evaluated for the defined exposure scenario(s); and 3) if so indicated above that the results meet the criteria of the referenced standard(s). AIRL did not select the samples, determine if the samples were representative of production samples, witness the production of test samples, or were we provided with information relative to the formulation or identification of component materials used in the test samples. The test results apply only to the actual samples tested. The issuance of this Comparison in no way implies Listing, Classification or Recognition by AIRL and does not authorize the use for AIRL Listing, Classification or Recognition Marks or any other reference to AIRL on the product or system. AIRL authorizes the above named company to reproduce this Comparison provided it is reproduced in its entirety. The name, brand or marks of AIRL cannot be used in any packaging, advertising, promotion or marketing relating to the data in this Comparison, without AIRL's prior written permission. AIRL employees and agents shall not be responsible to anyone for the use or nonuse of the information contained in this Comparison, and shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use of, or inability to use the information contained in this Comparison.

**INDOOR AIR QUALITY EVALUATION
FOLLOWING THE REQUIREMENTS OF
CDPH/EHLB/STANDARD METHOD**

**PREPARED FOR:
SPRAY-LOCK CONCRETE PROTECTION, INC.**

MANUFACTURER INFORMATION

Manufacturer	Spray-Lock Concrete Protection
Contact Name and Title	Brent Bergham
Contact Address	5959 Shallowford Road, Suite 405, Chattanooga, TN 37421
Contact Phone Number	423.305.6151 X134

PRODUCT INFORMATION

Product Description	SCP327
Manufacturer Product ID	Not provided
Product Category	Protective Sealants
Product Sub-Category	N/A
Manufacturing Location	Not provided
Date Manufactured	July 17, 2016
Date Collected	Not Provided
Date Shipped	Not Provided
Date Received	Not Provided

EXECUTIVE SUMMARY

PROJECT DESCRIPTION

AIRL is an ISO/IEC 17025 accredited testing laboratory, presents the results of its indoor air evaluation of a product identified as "SCP327" submitted by Spray-Lock Concrete Protection Inc. AIRL conducted this study using a product evaluation test protocol following California's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers" (aka CA Section 01350) (1). Test chamber methodology followed the guidance of ASTM D 5116 (2), volatile organic compound (VOC) analysis followed the methodology in EPA TO-17 (3) and ASTM D 6196 (4), and analysis for low molecular weight aldehydes, including formaldehyde and acetaldehyde, followed the methodology in ASTM D 5197 (5). The definition for total VOCs (TVOC) is from ISO 16000-6 (6). The quantifiable level for all compounds is 2 ug/m³. All identified target list compounds are quantified using authentic standards. Identified substances not on one of the designated toxics list are quantified using either authentic standards or surrogates and are notated appropriately.

The product was monitored for emissions of TVOC, individual VOCs, formaldehyde and other aldehydes after the 96-hour test period. Measurements were made and predicted exposures were calculated according to the CA Section 01350 protocol. As specified in this protocol, the results at 96 hours, after 10 days of conditioning, were compared to ¹/₂ (one-half) the current Chronic Reference Exposure Levels (CRELs), as adopted from the California OEHHA list (7). All identified VOCs were also compared to the California-EPA OEHHA Proposition 65 list (8) and the California-EPA Air Resource Board list of Toxic Air Contaminants (TACs) (9).

RESULTS

The calculation parameters and results for the tested product identified as "SPC327" are shown below:

Environment	Ventilation Rate (ACH)	Room Volume	Product Usage	Product Surface Area	Product Compliance?
Classroom	0.82	12.2 m x 7.23 m x 2.59 m = 231m ³ (40 x 24 x 8.5 ft = 8,160 ft ³)	Solid Surface Seam Sealer	119 m	Yes
Office	0.68	3.66 m x 3.05 m x 2.75 m = 30.6 m ³ (12 x 10 x 9 ft = 1,080 ft ³)	Solid Surface Seam Sealer	37.8 m	Yes

TABLE 1

ENVIRONMENTAL CHAMBER STUDY PARAMETERS PREPARED FOR: SPRAY-LOCK CONCRETE PROTECTION PROJECT 292437

Product Description:	SCP327
Date Received at AIRL:	August 23, 2016
Sample Preparation:	<p>The product was received by AIRL, Inc. via the customer. The sample was visually inspected and stored in a controlled environment immediately following sample check-in. Just prior to loading, a weighted amount was applied to a foil-wrapped plate. The sample was immediately placed inside the environmental chamber, and tested according to the specified protocol.</p>
Conditioning Period:	08/26/16 - 09/05/16
Test Period:	09/05/16 - 09/09/16
Product Area Exposed:	0.0503m ²
Chamber Volume:	0.0504m ³
Product Loading Ratio:	1.0m ² /m ³ rate:
Test Chamber Conditions:	<p>Air change rate: 1.00 ± 0.05 1/h Inlet air flow rate: 0.0504m³/h ± 0.002m³/h Temperature: 23°C ± 2 Relative Humidity: 50% RH ± 10%</p>

TABLE 2

**COMPARISON OF DATA TO CA SECTION 01350 TARGET CRELS
AFTER 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING**

**PREPARED FOR: SPRAY-LOCK CONCRETE PROTECTION INC
PROJECT SCP327 292347**

Compound Name	CAS Number	¹ / ₂ CREL (ug/m ³)	Chamber Concentration (ug/m ³)	Emission Factor tt (ug/m ³ •hr)	Classroom Predicted Concentration (ug/m ³)**	Office Predicted Concentration (ug/m ³)**	Meets ¹ / ₂ CREL? (Classroom/Office)
Acetaldehyde	75-07-0	70	BQL <5	BQL			Yes
Benzene	71-43-2	1.5	BQL <1	BQL			Yes
Carbon disulfide	75-15-0	400	BQL <10	BQL			Yes
Carbon tetrachloride	56-23-5	20	BQL <4	BQL			Yes
Chlorobenzene	108-90-7	500	BQL <4	BQL			Yes
Chloroform	67-66-3	150	BQL <4	BQL			Yes
Dichlorobenzene (1,4-)	106-46-7	400	BQL <4	BQL			Yes
Dichloroethylene (1,1)	75-35-4	35	BQL <4	BQL			Yes
Dimethylformamide (N,N-)	68-12-2	40	BQL <10	BQL			Yes
Dioxane (1,4-)	123-91-1	1,500	BQL <4	BQL			Yes
Epichlorohydrin*	106-89-8	1.5	BQL <1	BQL			Yes
Ethylbenzene	100-41-4	1,000	BQL <4	BQL			Yes
Ethylene glycol	107-21-1	200	BQL <4	BQL			Yes
Ethylene glycol monoethyl ether acetate	111-15-9	150	BQL <4	BQL			Yes
Ethylene glycol monoethyl ether	110-80-5	35	BQL <4	BQL			Yes

Compound Name	CAS Number	1/2 CREL (ug/m ³)	Chamber Concentration (ug/m ³)	Emission Factor (ug/m ³ •hr)	Classroom Predicted Concentration (ug/m ³)**	Office Predicted Concentration (ug/m ³)**	Meets 1/2 CREL? (Classroom/Office)
Ethylene glycol monomethyl ether acetate	110-49-6	45	BQL<4	BQL			Yes
Ethylene glycol monomethyl ether	109-86-4	30	BQL<4	BQL			Yes
Formaldehyde	50-00-0	9.0'	BQL<5	BQL			Yes
Hexane (n-)	110-54-3	3,500	BQL<10	BQL			Yes
Isophorone	78-59-1	1,000	BQL<10	BQL			Yes
Isopropanol	67-63-0	3,500	BQL<4	BQL			Yes
Methyl chloroform	71-55-6	500	BQL<4	BQL			Yes
Methyl t-butyl ether	1634-04-4	4,000	BQL<10	BQL			Yes
Methylene chloride	75-09-2	200	BQL<10	BQL			Yes
Naphthalene	91-20-3	4.5	BQL<4	BQL			Yes
Phenol	108-95-2	100	BQL<10	BQL			Yes
Propylene glycol monomethyl ether	107-98-2	3,500	BQL<10	BQL			Yes
Styrene	100-42-5	450	BQL<4	BQL			Yes
Tetrachloroethylene (perchloroethylene)	127-18-4	18	BQL<4	BQL			Yes
Toluene	108-88-3	150	BQL<4	BQL			Yes
Trichloroethylene	79-01-6	300	BQL<4	BQL			Yes
Vinyl acetate	108-05-4	100	BQL<4	BQL			Yes
Xylenes (m-, o-, p-)	1330-20-7	350	BQL<12	BQL			Yes

BQL denotes below quantifiable level (instrument calibration using authentic standard).

*The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N_c), the chamber volume (V_c), and the product area exposed in the chamber (A_O) as: $EF = (CC \cdot V_c \cdot N_c) / A_c$.

**Denotes compound is within volatility range of method but no calibration standard was available.

***The predicted building exposure concentration (BC) is calculated from the emission factor (EF), the building air change rate (N_b), the building room volume (V_b), and the product area exposed in the building room (A_b) as: $BC = (EF \cdot A_b) / (V_b \cdot N_b)$. Prediction based on a standard classroom solid surface seam sealer usage of 119 m in a 231 m³ room with 0.82 ACH or on a standard office solid surface sealer usage of 37.8 m in a 30.6 m³ room with 0.68 ACH.

***Guidance value per CA Standard Method

TABLE 3

**CHAMBER CONCENTRATIONS AND EMISSION FACTORS
FOR TVOC AND FORMALDEHYDE AT 96 HOURS
FOLLOWING 10 DAYS OF CONDITIONING**

**PREPARED FOR: SPRAY-LOCK CONCRETE PROTECTION INC
PROJECT SCP327 292437**

ELAPSED EXPOSURE HOUR AFTER 10 DAYS CONDITIONING	CHAMBER CONCENTRATION (ug/m ³)	EMISSION FACTOR ^{tt} (ug/m ³ •hr)
TVOC^t		
	<25	
Formaldehyde[‡]		
	<5	

BQL denotes below quantifiable level.

Exposure hours are nominal (± 1 hour).

^tDefined as the sum of those VOCs that elute between the retention times of n-hexane (C₆) and n-hexadecane (C₁₆) on a non-polar capillary GC column quantified based on a toluene response factor.

Compound identified and quantified by DNPH derivitization and HPLC/UV analysis.

^{tt}The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N_c), the chamber volume (V_c), and the product area exposed in the chamber (AO as: $EF = (CC \cdot V_c \cdot N_c) / A_c$.

TABLE 4

**CHAMBER CONCENTRATIONS, EMISSION FACTORS, AND
PREDICTED EXPOSURE CONCENTRATIONS
FOR THE TVOC & TEN MOST ABUNDANT IDENTIFIED INDIVIDUAL
AFTER 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING**

**PREPARED FOR: SPRAY-LOCK CONCRETE PROTECTION INC
PROJECT SPC327 292437**

CAS NUMBER	COMPOUND	CHAMBER CONC. (ug/m ³)	EMISSION FACTOR ^{tt} (ug/m•hr)	CALCULATED PREDICTED EXPOSURE CONCENTRATION** (ug/m ³)	
	TVOC (NONE)	*** <25			

TABLE 5

VOC PREDICTED AIR CONCENTRATIONS AND REGULATORY INFORMATION AT 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING

PREPARED FOR: SPRAY-LOCK CONCRETE PROTECTION INC
PROJECT SCP327 292347

CAS NUMBER	COMPOUND IDENTIFIED	CHAMBER CONC. (ug/m ³)	EMISSION FACTOR ^{tt} (ug/m ³ •hr)	PREDICTED EXPOSURE CONCENTRATION ^{**} (ug/m ³)		✓ INDICATES PRESENCE ON LIST		
				Classroom	Office	CA PROP 65	CA AIR TOXIC	CREL
---	none	---	---	---	---	---	---	---

^tQuantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

Compound identified and quantified by DNPH derivatization and HPLC/UV analysis.

^{tt}The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N_c), the chamber volume (V_c), and the product area exposed in the chamber (AO

as: $EF = (CC \cdot V_c \cdot N_c) / A_c$.

^{**}The predicted building exposure concentration (BC) is calculated from the emission factor (EF), the building air change rate (N_b), the building room volume (V_b), and the product area exposed in the building room (A_b) as: $BC = (EF \cdot A_b) / (V_b \cdot N_b)$. Prediction based on a standard classroom solid surface sealer usage of 119 m in a 231 m³ room with 0.82 ACH or on a standard office solid surface sealer usage of 37.8 m in a 30.6 m³ room with 0.68 ACH.

CAL Prop. 65: California Health and Welfare Agency, Proposition 65 Chemicals

1 = known to cause cancer

2 = known to cause reproductive toxicity

CAL Toxic Air Contaminant:

I) Substances identified as Toxic Air Contaminants, known to be emitted in California, with a full set of health values reviewed by the Scientific Review Panel.

IIA) Substances identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel.

IIIB) Substances NOT identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel.

IIIA) Substances known to be emitted in California, and are NOMINATED for development of health values or additional health values.

IVB) Substance identified as Toxic Air Contaminants, known to be emitted in California, and are TO BE EVALUATED for entry into Category III.

V) Substance identified as Toxic Air Contaminants, and NOT KNOWN TO BE EMITTED from stationary source facilities in California based on information from the AB 2588 Air Toxic "Hot Spots" Program and the California Toxic Release Inventory.

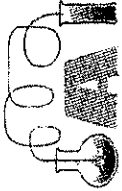
VI) Substances identified as Toxic Air Contaminants, NOT KNOWN TO BE EMITTED from stationary source facilities in California, and are active ingredients in pesticides in California.

Chronic REL: California Office of Environmental Health Hazard Assessment (OEHHA), Chronic Reference Exposure Levels

✓ = Found in Listing

REFERENCES

1. The State of California's Indoor Air Quality Program, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers" Version 1.2. <https://archive.cdph.ca.gov/programs/IAQ/Documents/CDPH-IAQStandardMethod V1 2 2017.pdf>.
2. ASTM D 5116, "Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products." ASTM, West Conshohocken, PA, 2010.
3. ASTM D 6196 "Practice for the Selection of Sorbents and Pumped Sampling/ Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air." ASTM, West Conshohocken, PA, 2009.
4. ASTM D 5197, "Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology)." ASTM, West Conshohocken, PA, 2009.
5. ISO 16000-6, "Indoor air -- Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS/FID," 2004.
<http://www.iso.org/iso/iso catalogue/catalogue tc/catalogue detail.htm?csnumber=30147>.
6. California Environmental Protection Agency; Chronic Reference Exposure Levels; The Office of Environmental Health Hazard Assessment (OEHHA);
<http://www.oehha.ca.gov/air/Allrels.html>.
7. California Environmental Protection Agency. Safe Drinking Water & Toxic Enforcement Act of 1986 (Proposition 65): No Significant Risk Levels for Carcinogens; Acceptable Intake Levels for Reproductive Toxicants (Status Report). Sacramento: California Environmental Protection Agency; <http://www.oehha.ca.gov/prop65/getNSRLs.html>.
8. California Environmental Protection Agency. Air Resources Board. Toxic Air Contaminants (TAC) Identification List; <http://www.arb.ca.gov/toxics/cattable.htm>
9. EPA TO-17, "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air - Second Edition," United States Environmental Protection Agency, www.epa.gov/ttn/amtic/files/ambient/airtox/to-17r.pdf, 1999.



JALIR INC
1550 37th Street, NE • Cleveland, TN 37312
Phone: 423.476.7766 • Fax: 423.476.7714

Send The Report To:

Brent Belcher
@ SPARVACK

Send Invoice To:

SPARVACK

Lab Number(s) 252437-282438 Chain of Custody Record

Project Site		Project No		Page of	
Site Name		Analysis		Report Due Date	
Collected By	Sample Matrix	Sample Date	Sample Time	Verbal / Fax / Hard Copy / Email	Other
Field Sample ID	Field Sample ID	Field Sample ID	Field Sample ID	Field Sample ID	Field Sample ID
SEP 327	LIR	8/23/16	3:00pm		
SEP 743	LIR	8/23/16	3:00pm		
Remarks				Remarks	
Received By				Received By	
Relinquished By				Relinquished By	
Date				Date	
Time				Time	
Return to Originator				Return to Originator	
Date				Date	
Time				Time	
Received for Lab by				Received for Lab by	
Date				Date	
Time				Time	
Remarks				Remarks	

APPENDIX 2

QUALITY CONTROL PROCEDURES FOR ENVIRONMENTAL CHAMBER EVALUATIONS

AIRL tests 9.0 ug/m^3 testing laboratory is ISO/IEC 17025 accredited with defined and executed internal and third party verification programs encompassing emission test methods and low level pollutant measurements. AIRL's quality control/assurance plan is designed to ensure the integrity of the measured and reported data obtained during its product evaluation studies. This QC program encompasses all facets of the measurement program from sample receipt to final review and issuance of reports. As a firm with ISO/IEC 17025 accredited testing laboratories, AIRL product control, testing, data handling, and reporting protocols and procedures are standardized and controlled. AIRL participates in proficiency and accreditation measurement programs for as required by the State of California and ISO 17025. Quality Assurance is maintained through AIRL's computerized data management system. An electronic "paper trail" for each analysis is also maintained and utilized to track the status of each sample, and to store the results. A complete quality report can be provided upon request and all test data and analysis procedures are available on site for customer review.

Chamber Evaluations

Supply air purity is monitored on a weekly basis, using identical methodology to the chamber testing. The supply air is assured to contain less than 10 ug/m^3 TVOC, $< 2 \text{ ug/m}^3$ total particles, $< 5 \text{ ug/m}^3$ formaldehyde, and $< 2 \text{ ug/m}^3$ for any individual VOC. Preventative maintenance ensures supply air purity, and corrective action is taken when any potential problems are noted in weekly samples. Supply air filter maintenance is critical for ensuring the purity of the chamber supply air. Chamber background samples are obtained prior to product exposure to ensure contaminant backgrounds meet the required specifications prior to product exposure. Results of this monitoring are maintained at AIRL and available for on-site inspection.

All environmental chamber procedures are in accordance with ASTM D 5116 and meet the data quality objectives required.

Various measures are routinely implemented in a product's evaluation program. These include but are not limited to:

- appropriate record keeping of sample identifications and tracking throughout the study;

- calibration of all instrumentation and equipment used in the collection and analysis of samples;
- validation and tracking of all chamber parameters including air purification, environmental controls, air change rate, chamber mixing, air velocities, and sample recovery;
- analysis of spiked samples for accuracy determinations;
- duplicate analyses of 10% of all samples evaluated and analyzed;
- multi-point calibration and linear regression of all standardization;
- analysis of controls including chamber backgrounds, sampling media, and instrumental systems.

State of Tennessee (ID #02034)

Alabama Dept. of
Environmental Management
(ID #40780)

AIRL, INC.

1550 37TH STREET, NE
CLEVELAND, TENNESSEE 37312
(423) 476 - 7766 Fax: (423) 476-7714

ISO/IEC 17025:2005, PJLA - 76332

Testing Accreditation

Scope of Accreditation:

Wastewater, Surface Water, Ground Water,
Drinking Water, Solids, Hazardous Waste, Soils,
Sediments, and Sludges.

Lab Report 292437

7950

Spray-Lock, Inc.

Attention: Brent Bergherm

5959 Shallowford Road, Suite 405

Chattanooga, TN 37421

Date Received 8 /23/2016

Date Sampled 8/23/2016

Date Requested 9 /2 /2016

Rush Status Normal

Phone (423) 305-6151

Extension

☐ Fax (423) 305-6150

☒ eMail:

PO#

Revised Report

Sample Information

SCP 327
Liquid

Lab Report: 292437	Result	LCL	Method	SDL	Date	Time	Analyst
<u>Research BNA</u>							
Research/BNA	< 10 ug/m3	10	CAL 1350	10	9/15/2016	17:09	RRP
Research/HPLC	< 5 ug/m3	5	CAL 1350	5	9/16/2016	11:52	JAV
1,1-Dichloroethylene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
1,4-Dichlorobenzene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
1,4-Dioxane	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Acetaldehyde	< 5 ug/m3	5	CAL 1350	5	9/16/2016	11:52	JAV
Benzene	< 1 ug/m3	1	CAL 1350	1	9/9/2016	12:37	DWJ
Carbon Disulfide	< 10 ug/m3	10	CAL 1350	10	9/9/2016	12:37	DWJ
Carbon Tetrachloride	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Chlorobenzene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Chloroform	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Epichlorohydrin	< 1 ug/m3	1	CAL 1350	1	9/9/2016	12:37	DWJ
Ethylbenzene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Ethylene Glycol	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Ethylene Glycol Monobutyl Ether	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Ethylene Glycol Monobutyl Ether Acetate	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Ethylene glycol monomethyl ether	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Ethylene glycol monomethyl ether acetate	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Formaldehyde	< 5 ug/m3	5	CAL 1350	5	9/16/2016	11:52	JAV
Hexane	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Isophorone	< 10 ug/m3	10	CAL 1350	10	9/15/2016	17:09	RRP
Isopropanol	< 10 ug/m3	10	CAL 1350	10	9/9/2016	12:37	DWJ
Methyl chloroform	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Methylene Chloride	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
MTBE	< 10 ug/m3	10	CAL 1350	10	9/9/2016	12:37	DWJ
N,N-Dimethylformamide	< 10 ug/m3	10	CAL 1350	10	9/9/2016	12:37	DWJ
Naphthalene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Phenol	< 10 ug/m3	10	CAL 1350	10	9/15/2016	17:09	RRP
Propylene glycol monomethyl ether	< 10 ug/m3	10	CAL 1350	10	9/15/2016	17:09	RRP
Styrene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Tetrachloroethene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Toluene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Trichloroethylene	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Vinyl Acetate	< 4 ug/m3	4	CAL 1350	4	9/9/2016	12:37	DWJ
Xylenes	< 12 ug/m3	12	CAL 1350	12	9/9/2016	12:37	DWJ

See Attached

Thursday, May 16, 2019

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Research Volatiles

Research/Volatiles

< 4

ug/m3

4

CAL 1350

4

9/9/2016 12:37

DWJ

Lowest Calibration Level [LCL] - reporting limit; Sample Detection Level [SDL] - Sample Specific

QA/QC Procedures required by the Method(s) were followed unless otherwise noted. Performance and acceptance standards for required QA/QC procedures were achieved unless otherwise noted. No significant modifications have been made to the Method(s). I attest that, based upon my inquiry of those individuals immediately responsible for reviewing the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of this laboratory. The laboratory retains sole ownership of data until full reimbursement has been made.

Report approved by:
TECHNICAL DIRECTOR***Revised Report***