

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

M358268061

FACILITY: IAC Group, ALMA, LLC (Formally Lear Corporation)		SRN / ID: M3582
LOCATION: 1965 WILLIAMS RD, ALMA		DISTRICT: Lansing
CITY: ALMA		COUNTY: GRATIOT
CONTACT: Jeremy Haller , Engineering Manager		ACTIVITY DATE: 07/10/2023
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Onsite compliance inspection to determine compliance with opt-out PTI 170-79I.		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow

Personnel Present: Jeremy Haller (jhaller@iacgroup.com), Engineering Manager

Purpose

Conduct an unannounced, onsite, partial compliance evaluation (PCE) inspection by determining compliance with International Automotive Components' (IAC) Permit No. 170-79I, including verification that IAC stayed within the permit's emission limits to remain an opt-out source.

This inspection was done as part of a full compliance evaluation (FCE). This facility was last inspected in March 2020.

Facility Background/Regulatory Overview

IAC manufactures interior automotive parts: mold-injection (IAC's main business); robotic and manual spray painting applications for the molded parts; assembling the interior automobile parts (for example, installing light tubes and wiring in overhead consoles). FGCOATING2 handles components for the Camaro line. GM Grand River in Lansing is IAC's main customer for the FGCOATING2 paint line.

IAC previously applied vinyl to interior automotive parts using the EUADHESIVELN, but this unit has not been used in several years and was removed from service recently.

J. Haller said that IAC's last facility shut down was in December 2022 and January 2023 due to the Ford plant being shut down.

Permit 170-79G was issued to cover 2 new emission units not previously covered in 170-79F: EUMANUAL and EUROBOTIC which were permitted under FGCOATING2. Permit 170-79H was issued because IAC wanted to transfer all production from EUBOOTH1-4 to FGCOATING2. EUBOOTH1-4, per PTI 170-79H, were required to be removed from service by May 1, 2015. On May 19, 2015 AQD received a letter from IAC dated May 5, 2015 notifying AQD that the EUBOOTH1-4 and its associated IR oven have been removed from service. Propylene carbonate was removed from PTI 170-79H because IAC no longer used it. The current PTI, 170-79I, was issued to increase the FGCOATING2 lb/gallon VOC limit from 3.0 lb VOC/gallon (minus water) to 3.5 lb VOC/gallon (minus water), as a result of the previous inspection's findings that, per Method 24 testing, the 396W24313C exceeded the limit at 3.5 lb/gallon VOC (minus water).

PTI 170-79I also included the change to remove emission limits and monitoring/recordkeeping requirements for the toxic air contaminants (TACs) 2-propanol,1-(2-butoxy-1-methylethoxy) and tripropylene glycol methyl because the coatings containing these compounds are no longer used at IAC (365212AX, 36413X, and 396W102). The one remaining permitted TAC, cumene, was present only in hardener AWXL-0256, but the formulation has since changed for AWXL-0256; cumene is no longer a component of the hardener.

IAC is an opt-out facility. Individual HAP and aggregate HAPs are limited to less than 9.0 tpy and less than 22.5 tpy, respectively, for FGFACILITY.

Inspection

At approximately 8:10 a.m. on July 10, 2023 I arrived at IAC. I met with Jeremy Haller, Engineering Manager, to discuss the purpose of the inspection, what I'd like to look at, and to discuss recordkeeping.

During the 2017 inspection, Pam Howson, former IAC EHS specialist, said that IAC was considering installing a burn-off oven and a carbon dioxide cleaner. During this inspection J. Haller said that IAC did not install either of these pieces of equipment and does not have plans to install the equipment. He also verified that IAC has no emergency generators, parts washers or boilers installed at the facility. Table 1 contains a list of all permitted and exempt equipment.

Table 1. Equipment List

Equipment	Description	Installation Date/ Modification Date	PTI/Exemption
EU-ADHESIVELN	<p>Robotic spray application of adhesive. Parts cured in natural gas-fired oven with 6 electric IR heaters.</p> <p>Dry filters for particulate control.</p> <p><u>This unit is not used. The adhesive booth is still present onsite; however, the adhesive applicator and all its components have been removed.</u></p>	<p>1-17-03/ 3-14-12</p>	PTI 170-79I
EU-MANUAL	<p>1 conveyORIZED spray coating booth to coat automotive plastic parts using 1 manual applicator.</p> <p>Parts cured in natural gas-fired oven</p> <p>Dry filters for particulate control</p>	<p>10-2014/ 7-20-16</p>	PTI 170-79I
EU-ROBOTIC	<p>2 conveyORIZED spray coatings booths for automotive plastic parts, using robotic applicators</p> <p>Booth 1 has 1 robotic applicator.</p> <p>Booth 2 has 2 robotic applicators.</p> <p>Cured in natural gas-fired oven</p> <p>Dry filters for particulate control</p>	<p>10-2014/ 7-20-16</p>	PTI 170-79I
Mold injectors & presses	<p>Mold injectors/presses have been added and removed over the years. IAC currently has a total of 29 mold injectors/presses that can press from 90 to 2200 tons.</p>	NA	Rule 285(2)(l)(i).

Presaturated isopropyl alcohol wipes	Used to wipe down parts prior to painting. 99% IPA, 1% water. Noncarcinogenic VOC, allowed 1000 lbs per month.	NA	Rule 290 or Rule 291

All Permitted Equipment - Process/Operational Restrictions

The Process/Operational Restrictions for all permitted emission units are the same. They require that all waste material be captured and stored in closed containers and to dispose of waste material in an acceptable manner and in compliance with all state rules and federal regulations. Additionally, spent filters need to be disposed of in a manner which minimizes the introduction of air contaminants to the outer air and all VOC/HAP-containing materials should be handled in such a manner to minimize fugitive emissions.

IAC generates hazardous waste (solvent-borne paints and solvents) and non-hazardous (water-borne) waste. J. Haller said that IAC combines all hazardous waste with non-hazardous waste into 55-gallon drum hazardous waste bins to ship out as hazardous waste. These hazardous waste containers are located in the one-room paint kitchen, along with various coatings. The robotic paint applicators have purge solvent piped to the booth from the paint kitchen and pulls from the purge solvent line when it's programmed to do so. The robotic applicators then purge the used solvent into a waste drum housed inside the paint booth. N-butyl acetate is used to purge the EUROBOTIC paint lines and a water/soap solution is used to purge the EUMANUAL paint lines. The hazardous waste is largely composed of water, but it contains the solvent-based catalyst and hardener from EUROBOTIC, which causes the waste to be hazardous. The EUMANUAL waste is waterborne only (contains no solvent-borne catalysts/hardeners).

J. Haller said that approximately 6 55-gallon drums are shipped out for waste disposal every 3 months which allows them to be reclassified from a "large quantity generator" to a "small quantity generator" under EGLE's Materials Management Division.

All raw material and waste containers were closed during the inspection.

J. Haller walked me through the process of how the waste paint booth filters are removed and loaded into the waste bins. All filters are allowed to dry within the facility in an uncovered waste bin. The bin is then rolled outside and dumped into a large waste dumpster to be disposed of as non-hazardous waste daily.

During the previous inspection I noted and brought to J. Haller's attention that the particulate from the filters was present around the rim of the large waste dumpster and explained that it has the potential to be blown off of the bin, potentially being entrained in the air, or being washed off by the rain on the ground, resulting in unintended sewer discharges. I noted black streaks down the sides of the dumpster, indicating that the particulate had been washed down the side of the dumpster in the past.

During this inspection, J. Haller showed me that they've put the large waste dumpster in a new location to prevent runoff from the bin to the storm sewers. There were no signs of paint particulate on the ground surrounding the container, no signs of particulate down the sides of the dumpster or on the rim of the dumpster. IAC appears to have satisfactorily addressed the issue and prevented paint particulate from getting re-entrained into the air from the paint filters.

EUADHESIVELN

EUADHESIVELN is currently not in use. The adhesive robotic applicator equipment has been removed, but the booth, vent, and stack are still present. A natural gas-fired oven associated with this line is also still present. The adhesive line was not being operated during the inspection. Records indicate that this emission unit was last used in October 2019.

There are no Reporting requirements for EUADHESIVELN at this time.

Emission Limits & Monitoring/Recordkeeping

IAC is limited to 0.75 tpy VOC per 12-month rolling time period, as determined at the end of each calendar month; 12-month rolling records are required to be kept, as well as the gallons with water of each material used and the VOC content minus and with water. The VOC content, density and water content are required to be determined via manufacturer's formulation data.

The adhesive line used PPG T8085 through August 2019. Since August 2018 IAC has also used a 2-part adhesive for their Ford line: the Diverstak CI-6507A (adhesive) and Diversitak17 CI-5608 BG (hardener) used in a ratio of 100 parts adhesive to 5.5 parts hardener.

I reviewed monthly and 12-month rolling data from March 2017 – January 2020. The highest VOC emissions reported at the end of the calendar month for the 12-month rolling periods ending in July 2019 and August 2019 was 0.125 tons per period, meeting the 0.75 tpy VOC limit. January 2020 – present there was no usage of coatings in EUADHESIVELN.

Material Limits, Testing/Sampling & Monitoring/Recordkeeping

The adhesives are limited to a 0.3 lb VOC/gal (minus water and as applied). The Environmental Data Sheet for T8085 states that the VOC content is 0.03 lb/gal minus water and exempt solvents. During the previous inspection, IAC was not able to obtain manufacturer's formulation data for the Diverstak 2-part adhesive, as the manufacturer was unresponsive. The SDS were used temporarily to determine VOC and HAP emissions for the Diverstak adhesive. The as-applied VOC content minus water determined by SDS is 0.09 lb/gal. In the event IAC begins using the Diverstak 2-part adhesive in this emission unit again, they will need to demonstrate the VOC content meets the VOC content limit by conducting a Method 24 analysis or by supplying the manufacturer's formulation data.

FGCOATING2

IAC refers to FGCOATING2 as the "Camaro Line" and consists of 2 conveyORIZED automotive interior plastic parts coating lines (consisting of 2 booths with 3 automatic robotic spray applicators - EUROBOTIC); a flame treatment booth (changes porosity of plastic to ensure paint adhesion); de-stat blow-off tunnel (deionized air blown on parts); 1 manual spray booth (EUMANUAL); a flash tunnel (ambient air tunnel to let paint settle before going to oven) and a natural gas-fired curing oven. There is 1 natural gas-fired oven that services the Camaro line. The parts are sent through the oven to activate the catalyst in order to cure the paint on the parts.

The flame treatment booth contains a flame that comes within inches of the part and treats the olefin plastic so that the paint can adhere to the part. There are 2 booths for the robotic applicators: Robot 4 is located in one spray booth and Robots 1 and 3 are both located in the other paint booth.

Prior to the parts being coated in the paint booths they are hand-wiped to remove dirt and cardboard fibers with Contec presaturated 99% isopropanol wipes. J. Haller said the wipes are composed of 90% isopropyl alcohol (IPA) and 10% water. During the previous inspection in 2020 IAC had claimed exemption Rule 290 for the use of these wipes and noted a total of 624 lbs VOC for the entire year, in compliance with the 1000 lb/month Rule 290 limit. On September 19, 2023 IAC provided a Rule 291 exemption demonstration created by their consultants, BB&E, for this process (attached). In the demonstration, they posit that between 2019 and 2022, 2019 had the highest usage of wipes at 14,000, which they equate to 372.45 lb VOC/year. The information provided shows compliance with Rule 290 for 2019 – 2022; however, I will be discussing with IAC that the Rule 291 demonstration does not take into account true potential emissions from this process and that Rule 290 is more appropriate and will require monthly recordkeeping for VOC emissions.

J. Haller said that the Camaro Line production (EUROBOTIC) has slowed and is currently running at 1 shift per day from 6 a.m. – 2 p.m., versus the 3 shifts per day, 5 days per week they had been operating at in the past. None of the paint booths for EUROBOTIC or EUMANUAL are used after 2 p.m.

EUMANUAL was used to coat parts for the Chrysler RT minivan and with this production complete, J. Haller said they now use EUMANUAL for special projects, which generally occur once per month. EUMANUAL is not being used for production.

J. Haller confirmed that the following coatings are used in FGCOATING2:

- AWDF-9397 – EUROBOTIC (black coating)
- AWXL-0256 - EUROBOTIC (hardener)
- JA6A 585W38A – EUROBOTIC (coating)
- SL10 – EUROBOTIC (water-borne urethane hardener)

AWDF-9397 and AWXL-0256 are applied in a 3.5:1 ratio by volume. JA6A 585W38A and SL10 are applied at a ratio of 2.1:1.

The JA6A 585W38A/SL10 coating combination is new to IAC's processes for their new Ford project. IAC provided an exemption demonstration for this change at my request. IAC is claiming Rule 285(2)(b)(i)(A) for a change in process which does not involve a meaningful change. The AQD does not agree with the use of this exemption, and believes a possible, more appropriate exemption Rule would be Rule 285(2)(c)(iii). Rule 285(2)(b)(i)(A) is for changes in the supplier or formulation of similar raw materials. The addition of these two raw materials for the Ford project are not considered changes in the supplier or formulation of similar raw materials. A meaningful change demonstration was included in this document; however, the information provided was insufficient for the AQD to ascertain whether a meaningful change had occurred or not. This includes information and an evaluation missing for those TACs in the new coatings which do not yet have screening levels. I have requested a revised Rule 285 meaningful change demonstration and requested it be submitted to me by October 16, 2023.

There are currently no Reporting requirements for FGCOATING2.

Emission Limits, Testing/Sampling, & Monitoring/Recordkeeping

IAC is limited to 64.2 tons VOC per 12-month rolling period and 152.4 lb per 12-month rolling period for cumene. Records are required to be kept on a monthly basis for gallons of each material used, including cumene-containing materials used; and the VOC and cumene mass emission calculations are required to be calculated and kept on a monthly and 12-month rolling basis, by the 30th day of the calendar month for the previous calendar month. IAC is allowed to determine the VOC content, water content and density of coatings via manufacturer's formulation data in lieu of Method 24 analyses, as allowed by the AQD via an approval letter sent on 6/22/16. Per the PTI, IAC is allowed to use SDS's to determine the chemical composition of each coating, including the weight percent of each component.

The formulation for AWXL-0256 changed when the manufacturer changed from United Paints to Axalta. AWXL-0256 no longer contains cumene or xylene. The new hardener, SL10, and AWXL-0256 are the only materials IAC currently uses which contains HAPs.

IAC uses the VOC content of each material without water to calculate VOC emissions, and thus overestimates emissions. The AQD believes this is an acceptable approach until the point at which IAC has emissions that are at or near the permitted emission rates. The with-water VOC contents should be used when calculating VOC emissions if emissions reach permitted limits in an effort to prevent a false-exceedance of the emission limits.

IAC maintains electronic records of the coating specs for each coating (VOC, HAP and TAC wt%; water content, and density); the VOC emission calculations per calendar month and 12-month rolling tonnage; TAC emissions calculations per calendar month and 12-month rolling tonnage; and HAP emissions calculations per calendar

month and 12-month rolling tonnage (for FGFACILITY). Attached are the spreadsheets. Cumene is accounted for in the HAPs emissions tab.

Table 2 contains the highest 12-month rolling VOC and cumene emissions during the 12-month rolling periods contained within the period of January 2020 – June 2023. Highest emissions for VOC occurred during the 12-month rolling period ending in February 2020. The highest emissions for cumene occurred during the period of August 2022 (when cumene-containing materials usage began) and June 2023.

Table 2. 12-month rolling emissions for VOC and Cumene

Pollutant	Actual	Limit (12-month rolling)
VOC	24.2 tons	64.2 tpy
Cumene	2.0 lbs	152.4 lb/year

Material Limits, Testing/Sampling & Monitoring/Recordkeeping

The coating VOC content limit for all coatings used in FGFACILITY is 3.5 lb VOC/gal (minus water), as applied. The previous PTI, 170-79H had a coating limit of 3.0 lb VOC/gal (minus water); however, because 396W light camel (although it is no longer being used as of January 2016) and 396W24313C black lacquer (also no longer used) exceeded the 3.0 lb/gal VOC content minus water limit (3.4 lb VOC/gal and 3.5 lb VOC/gal, respectively) a violation notice was issued and the PTI was modified to increase the VOC content limit to 3.5 lb/gal.

AWDF-9397 and AWXL-0256 are mixed in a 3.5:1 ratio (AWDF-9397: AWXL-0256) and the JA6A and SL10 are mixed in a 2.1:1 ratio (JA6A:SL10). IAC calculates the “as applied” VOC content for each mixture. I reviewed the Technical Data Sheets (TDSs) for each material and noted that the VOC content without water for the AWDF-9397, as documented in the TDS, is 2.95 lb/gal +/- 0.15 (a conservative 3.1 lb/gal). IAC has reported a VOC content without water of 2.80 for this material, indicating that the VOC content was not updated based on the May 2021 TDS. Using the corrected VOC content without water for the AWDF-9397, the corrected as-applied VOC content for the AWDF/AWXL mixture is 3.1 lb/gal, which is in compliance with the 3.5 lb/gal limit. I have brought the need for the VOC content corrections to J. Haller’s attention. Table 3 contains a listing of the materials with their associated VOC contents without water, as well as the mixtures’ as-applied VOC contents.

Table 3. VOC Contents without Water.

Coating	IAC-reported VOC (w/o H ₂ O) lb/gal	IAC as-applied reported VOC (w/o H ₂ O) lb/gal	VOC Content (TDS/EDS) (w/o H ₂ O) lb/gal	AQD-verified VOC (as-applied mixture) (w/o H ₂ O) Lb/gal	Source of VOC content info (as verified by AQD)	Coating VOC Content Compliance?
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AWDF-9397 (coating)	2.80	2.86	2.95 +/- 0.15	3.09	TDS dated May 2021	Yes
AWXL-0256 (hardener)	3.06		2.91 +/- 0.15		TDS dated April 2016	Yes
JA6A 585W38A (coating)	0.41	0.58	0.4098	0.58	EDS dated May 2022	Yes
SL10 (hardener)	0.94		0.9359		EDS dated March 2022	Yes

Design/Equipment Parameters

Two of the 3 robots in EUROBOTIC were operating during the inspection, EUMANUAL was not operating. From my vantage point through the EUROBOTIC booth window, without entering any of the EUROBOTIC booths while in operation, I determined that all filters appeared to be properly installed. EUMANUAL filters also appeared to be properly installed. J. Haller explained during this inspection that there are 3 layers to the booth filters in EUROBOTIC from outermost layer to innermost layer: blanket filter (visible layer, changed every 12 hours), panel filter, and pocket (bag) filters. EUMANUAL filters consist of blanket and panel filters, the blanket filters of which are replaced two times per day. The panel and pocket filters are changed once per week, every Sunday. The blanket filters are disposed of in a dumpster. Filters are allowed to dry prior to disposal. Particulate on the filter is very fine and heavy. J. Haller pointed out that beyond this filter replacement schedule, they rely on the pressure drop monitor, which measures pressure drop across all 3 filters, as an indicator for when the filters should be changed. He stated that blanket filters are typically the filters that are changed the most.

IAC is required to keep test caps available for pressure testing of the EUMANUAL and EUROBOTIC applicators. J. Haller conducted test cap pressure readings on all atomizers after the inspection. Table 4 shows the test cap pressure readings taken on 7/30/23. The readings indicate compliance: all readings are below 10 psi.

Table 4. Atomization test cap data July 2023.

	Actual Reading (psi)
Manual Spray	7.1
Robot 1	8
Robot 3	6
Robot 4	3.4

Stack/Vent Restrictions

Verification of the stack heights was conducted by AQD during this inspection using the Nikon Forestry Pro II Rangefinder. Table 5 contains this data as well as the floor plan stack heights provided by IAC. There were no signs of opacity emitting from any of the stacks during the inspection. Based on the Nikon Rangefinder results, the actual stack heights are in compliance with the permitted stack heights.

Table 5. Actual stack heights

Stack & Vent ID	Permitted Minimum Height Above Ground (ft)	Actual Height Above Ground (ft) (as reported by IAC)	Actual Height Above Ground (ft) (as determined by AQD Nikon Forestry Pro II Rangefinder)
SV-MANUAL	37	38.2	37.9
SV-ROBOT1	37	38	37.7
SV-ROBOT2	37	39	41.5
SV-NATGASOVEN2	37	38	37.3

FGFACILITY

FGFACILITY HAP limits apply source-wide. Based on my findings during the inspection, the coatings used in FGCOATING2 are the only materials IAC uses that contain HAPs; therefore, all HAPs emissions are based solely on the HAP materials used in FGCOATING2.

There are currently not Material Limits, Process/Operational Restrictions, Design/Equipment Parameters or Reporting requirements for FGFACILITY.

Emission Limits, Testing/Sampling & Monitoring/Recordkeeping

IAC has individual and aggregate HAP limits (< 9.0 tpy and < 22.5 tpy, respectively). IAC has identified hexamethylene diisocyanate (HDI), xylene, and cumene as HAPs in their HAPs recordkeeping. I confirmed, via review of manufacturer's formulation data that these are the only HAPs contained within the coatings they used. Within their electronic spreadsheet IAC tracks the gallons of HAP-containing materials used, the HAP content, and individual and aggregate HAP emissions calculations on a monthly and 12-month rolling basis. Table 6 shows the HAP content of all coatings IAC is currently using, based on manufacturer-provided information. During review of IAC's HAPs spreadsheet with the AQDS for AWXL-2056 I noted that IAC conducted their calculations based on an HDI content of 0.11 wt%. This value does not align with the wt% provided by the AQDS,

at 0.23%. I have made IAC aware of this discrepancy, and adjusted the wt% to 0.23% in their spreadsheet to in order to evaluate accurate HDI emissions.

Table 7 shows HAP emissions versus permit limits. Records were reviewed for January 2020 – June 2023. During this time period, rolling HAPs still included some of the rollover HAPs from coatings that are no longer being used at the facility, and Table 7 encompasses these HAP emissions as well. The adhesive line coating usage ended in October 2019 and the new Ford coatings containing HAP started in August 2022. The highest HAP emissions for each individual HAP are listed in Table 7. Aggregate total HAPs are based on IAC’s HAPs emissions spreadsheet: the highest total aggregate HAPs reported between January 2020 and June 2023 was January 2020 at 2.9 tpy. As shown in Table 7, IAC is in compliance with all FG FACILITY individual and aggregate HAP limits at this time.

Table 6. HAP content of various coatings

Coating	Source	EU	Cumene (wt%)	HDI (wt%)	Xylene (wt%)
AWXL-0256	United Paint AQDS (9/18/23)	FGCOATING2	NA	0.23	NA
SL10	Red Spot EDS (3/21/22)	FGCOATING2	0.1	1.0	0.1

Table 7. Aggregate and Individual HAP emissions vs. HAP limits for Jan 2020 – June 2023

Pollutant	Actual Individual HAP (tpy)**	Limit Individual HAP (tpy)**
Formaldehyde	0.012 (February 2020)	<9.0
Ethynyl-benzene	0.012 (February 2020)	
Chlorobenzene	0.015 (January 2020)	
Vinyl Acetate	2.81 (January 2020)	
Cumene	0.022 (January 2020)	
HDI	0.05 (January 2020)	

Xylene	0.032 (January 2020)	
Total Aggregate HAPs	2.9	<22.5

**The months noted in parentheses are those months that ended the 12-month rolling period.

Compliance statement: IAC appears to be in compliance with PTI 170-79I at this time, pending the Rule 285 exemption for the new Ford coatings. While a demonstration was provided, additional information is necessary to determine compliance with the Rule.

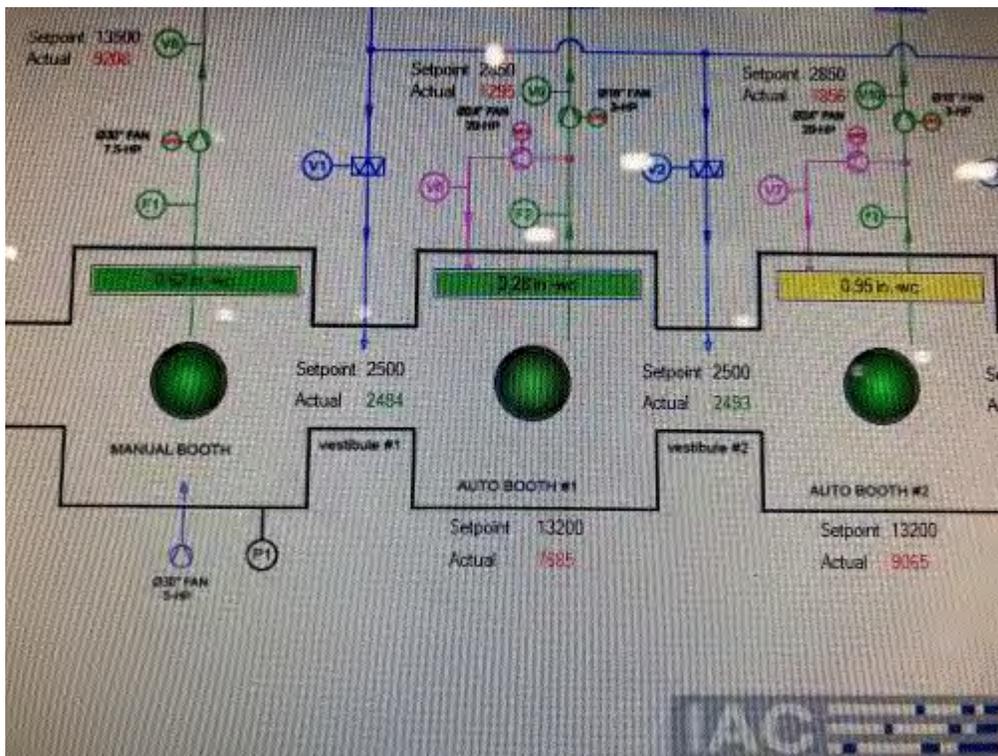


Image 1(Filter Monitoring) : Monitoring for filter pressure drop on FGCOATING2 booths.



Image 2(EUADHESIVELN) : Adhesive line booth - equipment has been removed from booth.

NAME Michelle Luplow

DATE 9/19/23

SUPERVISOR RB

Environmental Data Sheet



PAINT & VARNISH COMPANY, INC.

The composition below is of the Product as FORMULATED. Variation may occur in individual batches due to adjustments made during production.

1. Product Physical and Chemical Properties

Product Name:	WATERBORNE URETHANE HARDENER	
Product Information:	SL10	Revision Date: 03/21/2022
Supplier:	Red Spot Paint & Varnish Co., Inc. 1107 E. Louisiana St. Evansville, IN 47711	Density, lb/gl: 8.4414 Specific Gravity: 1.014

For Environmental Reporting and Permitting, use actual batch data and processing information. For further assistance, contact your sale representative.

Calculated Theoretical VOC Content, lb/gal: 0.535 (63.665 gr/L)
Calculated Theoretical VOC minus Exempt Solvents, lb/gal: 0.9359 (111.3721 gr/L)

Solvent Blend Density, lb/gal: 7.23

Non-Volatile:	Volatile:	Water:
% by Weight: 56.9878	% by Weight: 43.0122	% by Weight: 0.00
% by Volume: 49.7958	% by Volume: 50.2042	% by Volume: 0

2. Composition/Information on Ingredients

Chemical Name	CAS-No.	% by Weight	HAPS	HAPS Solid	SARA 313
TERT-BUTYL ACETATE	540-88-5	25-50	No	No	No
BUTYL ACETATE	123-86-4	1-10	No	No	No
1,2,4-TRIMETHYLBENZENE	95-63-6	1-10	No	No	Yes
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0	0.1-1.0	Yes	No	Yes
CUMENE	98-82-8	<0.1	Yes	No	Yes
XYLENE	1330-20-7	<0.1	Yes	No	Yes

HAPS per lbs of Solids, lb: 0.004 **VOC per gallon of Solid, lbs/gal:** 1.07
HAPS per Gallon, lb: 0.019 **VOC per pound of Solids, lb/lb:** 0.11

The information contained in this Environmental Data Sheet is construed as Confidential and Proprietary and shall not be disclosed outside of your organization without the written consent from Red Spot Paint & Varnish Co., Inc.

The information, as set forth for reference only, was obtained from outside sources and internal calculations that Red Spot Paint & Varnish Co., Inc., and its affiliates and subsidiaries, believe to be accurate and reliable as of the date of this document. Please be advised that there are no warranties, representations or conditions, expressed or implied, of any kind, including, but not limited to, the accuracy, reliability, completeness of the information, or the merchantability or fitness for a particular purpose, and Red Spot Paint & Varnish Co., Inc. or its officers, employees, affiliates or subsidiaries, shall not be held liable for any errors or omissions, or for any direct, indirect or consequential loss or damage caused by or howsoever arising from reliance on all or any part of the contents of this document. Revisions of this document may be made based on the latest information made available to Red Spot Paint & Varnish Co., Inc. The information presented herein relates only to the specific material(s) designated and may not be valid for such material(s) used in combination with any other material(s), in any process or for any other purpose, unless specified in the text. Accordingly, the purchaser and each user assume all risks and liability connected to their specific use of such material(s). Nothing contained herein is to be construed as permission, recommendation or inducement by Red Spot Paint & Varnish Co., Inc. or its officers, employees, affiliates or subsidiaries, to use any material(s), product or process so as to infringe or conflict with any patent. Further, it is the user's obligation to utilize this (these) material(s) in full compliance with all required health, safety and environmental regulations. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. In the event of a discrepancy between the information on the non-English document and its English counterpart, the English version shall supersede.

END OF DATA SHEET

Environmental Data Sheet


PAINT & VARNISH COMPANY, INC.

The composition below is of the Product as FORMULATED. Variation may occur in individual batches due to adjustments made during production.

1. Product Physical and Chemical Properties

Product Name:	BLACK JA6A	
Product Information:	585W38A	Revision Date: 05/12/2022
Supplier:	Red Spot Paint & Varnish Co., Inc. 1107 E. Louisiana St. Evansville, IN 47711	Density, lb/gal: 8.7318 Specific Gravity: 1.049

For Environmental Reporting and Permitting, use actual batch data and processing information. For further assistance, contact your sale representative.

Calculated Theoretical VOC Content, lb/gal: 0.093 (11.067 gr/L)
Calculated Theoretical VOC minus Exempt Solvents, lb/gal: 0.4098 (48.7662 gr/L)

Solvent Blend Density, lb/gal: 8.32

Non-Volatile:	Volatile:	Water:
% by Weight: 25.1202	% by Weight: 74.8798	% by Weight: 73.82
% by Volume: 21.4079	% by Volume: 78.5921	% by Volume: 77.38

2. Composition/Information on Ingredients

Chemical Name	CAS-No.	% by Weight	HAPS	HAPS Solid	SARA 313
POLYETHER RESIN	Proprietary	1-10	No	No	No
SILICON DIOXIDE	7631-86-9	1-10	No	No	No
CARBON	1333-86-4	0.1-1.0	No	No	No

HAPS per lbs of Solids, lb: 0.000	VOC per gallon of Solid, lbs/gal: 0.43
HAPS per Gallon, lb: 0.000	VOC per pound of Solids, lb/lb: 0.04

The information contained in this Environmental Data Sheet is construed as Confidential and Proprietary and shall not be disclosed outside of your organization without the written consent from Red Spot Paint & Varnish Co., Inc.

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END OF DATA SHEET



235 East Main Street, Suite 107
Northville, MI 48167

Tel: (248) 489-9636
Fax: (248) 489-9646

MEMORANDUM

Date: September 19, 2023

To: Jeremy Haller

From: Tanner Weekley

RE: IAC Alma Air Permit Evaluation and Exemption Determination

The purpose of this memorandum is to provide supporting information to IAC Alma, LLC (IAC Alma) regarding the use of Contec Prostat PSPP0032 Presaturated Alcohol Wipes for the existing Camaro Line, Adhesive Line, Robotic Line, and Manual Line (Lines). Manufacturer information, along with facility provided usage data were used to evaluate compliance with the facility's current Permit to Install (PTI) No. 170-79I (**Attachment A**), and to determine whether a PTI modification will be required.

According to the Michigan Administrative Code R336.1291(2), the requirements to obtain a permit to install do not apply to any emission unit in which potential emissions meet the conditions listed in (a) to (d) of the subrule and table 23 for all air contaminants listed. In addition, records must be maintained in accordance with subdivisions (e) and (f).

Operational changes in the Lines were evaluated and compared to existing emission and material limits specified in the current PTI. Given the general process information and product information that was made available, as well as the calculations completed to evaluate emissions, **it does not appear that a PTI modification is required for the presaturated alcohol wipes used at the IAC Alma facility.** Should there be a change in processes or material usage, the calculations included herein will need to be re-evaluated to determine if a modification to the PTI No. 170-79I would be required.

ASSESSMENT

Deionized water and isopropyl alcohol, a Toxic Air Contaminant (TAC), are both present in the presaturated wipes manufactured by Contec. The Contec formulation for the PSPP0032 presaturated wipes does not contain any Hazardous Air Pollutants (HAPs).

Emission calculations were completed to determine if the usage of presaturated alcohol wipes would meet the exemption stated in the R336.1291(2)(f). To evaluate the Volatile Organic Compound (VOC) emissions, the usage and the composition of the wipes were reviewed, as shown below and in **Attachment B** (Emission Calculations). The composition of the wipes is shown in the emission calculations and as part of **Attachment C** (Safety Data Sheet [SDS] and Manufacturer Information).

Actual emission calculations were developed, and the VOC content (as applied) was determined to evaluate compliance with emission and material limits defined in PTI No. 170-79I. Based on the

maximum annual quantity of PSPP0032 presaturated wipes used from 2019 through 2022, 2019 exhibited the highest usage of wipes at 14,000 wipes. Based on facility provided information, the facility was running three shifts during 2019, and the maximum quantity of wipes used correlates to the 2019 values provided. The actual annual emissions from wipe usage in 2019 was **0.19 tons per year (TPY) VOCs**.

Future wipe usage is not expected exceed the maximum quantity used in 2019; therefore, the potential to emit for this process is **0.19 TPY VOCs**.

The ITSL for isopropyl alcohol is 220 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Accordingly, as the screening level is above $2 \mu\text{g}/\text{m}^3$, the rules specified in R336.1291(2)(a) to (c) are not applicable to this TAC. Based on the components of the wipe, R336.1291(2)(d) is not applicable. The above VOC emissions also demonstrate that the additional TAC emissions from the use of the wipes are well below the applicable limit of 5 TPY to satisfy R336.1291(2)(f).

This memo and attachments satisfy R336.1291(2)(e) and (f). Emission calculations are included as **Attachment B**. SDS and manufacturer information are included as **Attachment C**.

Compliance with PTI No. 170-79I

The usage of PSPP0032 presaturated wipes are subject to the following conditions of the facility's PTI:

- Emission limit of 64.2 TPY VOCs based on 12-month rolling basis for the FGCOATING-2 processes.

The potential VOC emissions from the Contec PSPP0032 presaturated wipes are equal to approximately 0.242 TPY, which is below the R 336.1291(2)(f) de minimis limit of 5 TPY. The actual VOC emission totals for the FGCOATING-2 are approximately **16.30 TPY VOCs**, as shown in **Attachment B**, well below the limit of **64.2 TPY VOCs**.

Based on the product mix ratio of 9-parts isopropyl alcohol to 1-part deionized water, the VOC content is 0.027 pounds (lbs) VOC per wipe. Each wipe weighs approximately 17.46 grams wet and 4.04 grams dry, therefore, the water and alcohol comprise 13.42 grams per wipe. Each wipe has a 90% volatile content. The VOC content was calculated using the following formula:

- $13.42 \text{ grams} \times 90\% / 454 \text{ grams per pound} = \mathbf{0.027 \text{ lbs of VOCs/wipe}}$.

Based on this evaluation, it appears that the additional use of Contec presaturated alcohol wipes does not require changes to existing emission limits and material limits established in the current PTI; therefore, a modification to Permit No. 170-79I is not required. A copy of the PTI is included as **Attachment A**.

Summary

The use of alcohol wipes at the IAC Alma facility resulted in 0.19 TPY of VOC emissions which is below the facility limits of 64.2 TPY VOC emissions listed in PTI 170-79I. Based on this evaluation, the calculated material values, and emission rates for the Contec presaturated wipes are within the current permit limits; therefore, the facility is compliant with the emission and material limits established by PTI No. 170-79I. The use of the wipes created emissions which are considered de minimis and meet the permitting exemption outlined in the R 336.1291(2)(f). As a result, it appears that the use of the materials discussed above do not require a modification to the current PTI No. 170-79I, or additional permit applications.

It should be noted that if any of the operating conditions are changed, production is increased, or if a new process is installed, a re-evaluation of the facility's emissions should be conducted. If it is determined that an exceedance of PTI emission or material limits will occur, either with a new process or change in a current process, a PTI modification application may be required.

BB&E appreciates the opportunity to work with you on this important project. If you have any questions or concerns, please do not hesitate to contact me at (248) 489-9636, ext. 304.

Sincerely,
BB&E, Inc.

A handwritten signature in black ink, appearing to read "Tanner Weekley", with a long horizontal flourish extending to the right.

Tanner Weekley, PE, CHMM
Project Manager

Enclosures:

Attachment A – Permit to Install No.170-79I

Attachment B – Emissions Calculations

Attachment C – SDS and Manufacturer Information

ATTACHMENT A

Permit to Install No.170-79I

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

July 20, 2016

PERMIT TO INSTALL
170-791

ISSUED TO
IAC Alma, LLC

LOCATED AT
1965 Williams Road
Alma, Michigan

IN THE COUNTY OF
Gratiot

STATE REGISTRATION NUMBER
M3582

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

July 8, 2016

DATE PERMIT TO INSTALL APPROVED:

July 20, 2016

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
 - a. A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b. A visible emission limit specified by an applicable federal new source performance standard.
 - c. A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU-ADHESIVELN	Adhesive line to apply adhesive using robots. Parts will be cured in a natural gas-fired oven as well as 25 feet of curing oven equipped with six (6) electric infra-red heaters. The adhesive line is equipped with dry filters to control particulate matter.	January 17, 2003 / March 14, 2012	FG-FACILITY
EU-MANUAL	One (1) conveyORIZED spray coating booth to coat automotive interior plastic parts by using manual applicators. Parts will be cured in a shared natural gas-fired oven.	October 2014 / July 20, 2016	FG-COATING2, FG-FACILITY
EU-ROBOTIC	Two (2) conveyORIZED spray coating booths to coat automotive interior plastic parts by using automatic applicators. Each booth is equipped with one (1) robotic applicator. Parts will be cured in a shared natural gas-fired oven.	October 2014 / July 20, 2016	FG-COATING2, FG-FACILITY
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to: EU-ADHESIVELN

DESCRIPTION: Adhesive line to apply adhesive using robots. Parts will be cured in a natural gas-fired oven as well as 25 feet of curing oven equipped with six (6) electric infra-red heaters.

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT: Dry filters

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	0.75 tpy	12-month rolling time period as determined at the end of each calendar month	EU-ADHESIVELN	SC VI.2, SC VI.3	R 336.1702(a)

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Coatings	0.3 lb VOC/gal (minus water) ^a as applied	Instantaneous	EU-ADHESIVELN	SC V.1	R 336.1702(a)
^a The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. (R 336.1602(4))					

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**
2. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**
3. The permittee shall handle all VOC and/or HAP containing materials in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1224, R 336.1702(a))**
4. The permittee shall not use any VOC containing purge and cleanup solvents in EU-ADHESIVELN. **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate all spray booth portions of EU-ADHESIVELN unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
2. The permittee shall equip and maintain all spray booth portions of EU-ADHESIVELN with HVLP or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall determine the VOC content, water content and density of any coating and adhesive, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep the following information on a monthly basis for EU-ADHESIVELN:
 - a. Gallons (with water) of each material used.
 - b. VOC content (minus water and with water) of each material as applied.
 - c. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Unobstructed Vertically Upwards (Yes / No)	Underlying Applicable Requirements
1. SV-ADHESIVELN	24	35	Yes	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-NATGASOVEN	16	31	No	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-COATING2	Two (2) conveyORIZED automotive interior plastic parts coating lines consisting of a flame treatment booth, a de-stat blow-off tunnel, one (1) manual spray booth, two (2) automatic robotic spray booths, a flash tunnel and a natural gas-fired curing oven.	EU-MANUAL, EU-ROBOTIC
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	NA

The following conditions apply to: FGCOATING-2

DESCRIPTION: Two (2) conveyORIZED automotive interior plastic parts coating lines consisting of a flame treatment booth, a de-stat blow-off tunnel, one (1) manual spray booth, two (2) automatic robotic spray booths, a flash tunnel and a natural gas-fired curing oven.

Emission Unit ID: EU-MANUAL, EU-ROBOTIC

POLLUTION CONTROL EQUIPMENT: Dry filters on spray booths

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	64.2 tpy	12-month rolling time period as determined at the end of each calendar month	FG-COATING2	SC VI.2, SC VI.3	R 336.1702(a)
2. Cumene (CAS No. 98-82-8)	152.4 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-COATING2	SC VI.2, SC VI.4	R 336.1225(1)

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	3.5 lb/gal (minus water) ^a as applied	Instantaneous	FG-COATING2	SC V.1	R 336.1702(d)

^a The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. **(R 336.1602(4))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1702(a))**
2. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. **(R 336.1224, R 336.1370)**
3. The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1224, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FG-COATING2 unless all respective exhaust filters are installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
2. The permittee shall equip and maintain FG-COATING2 with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing. **(R 336.1702(a))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall determine the VOC content, water content and density of any coatings, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**
3. The permittee shall keep the following information on a monthly basis for FG-COATING2:
 - a. Gallons (with water) of each material used.
 - b. Where applicable, gallons (with water) of each VOC-containing material reclaimed.
 - b. VOC content (minus water and with water) of each material as applied.
 - c. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance or an alternate method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1702(a))**

4. The permittee shall keep the following information on a monthly basis for FG-COATING2:
 - a. Gallons (with water) of each cumene (CAS No. 98-82-8) containing material used and, if applicable, reclaimed.
 - b. The cumene (CAS No. 98-82-8) content (with water) in pounds per gallon of each material used.
 - c. Cumene (CAS No. 98-82-8) mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - d. Cumene (CAS NO. 98-82-8) mass emission calculations determining the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance or an alternate method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ **(R 336.1225(1))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-MANUAL	18	37	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-ROBOT1	18	37	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-ROBOT2	18	37	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-NATGASOVEN2	24	37	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Dry filters on spray booths

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall determine the HAP content of any material as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**
3. The permittee shall keep the following information on a monthly basis for FGFACILITY:
 - a) Gallons or pounds of each HAP containing material used.
 - b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
 - c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
 - d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months.

The permittee shall keep the records using mass balance or an alternate method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

ATTACHMENT B

Emissions Calculations

IAC Alma
 1965 Williams Road, Alma, MI
 Alcohol Wipes Emission Calculations

ALCOHOL WIPE SPECIFICATIONS				
Wipe Composition	Wipe Content (lb/wipe) ¹	VOC Content (% volatile) ²	CAS # ³	% Weight ³
Distilled Water	0.0030	0.00%	7732-18-5	10.00%
Isopropyl alcohol (TAC)	0.027	100.00%	67-63-0	90.00%

POTENTIAL EMISSION CALCULATIONS				
Product	Maximum Usage (wipes/yr) ⁴	Maximum Usage (boxes/yr) ⁵	VOC Emissions (lb/yr) ⁶	VOC Emissions (Isopropyl alcohol) (tpy) ⁷
Contec P5PP0032	14,000	280	372.45	0.19

Alcohol Wipe Specification Notes:

1. Based on testing, one wipe weighs approximately 17.46 grams wet, and 4.04 grams dry. The water and alcohol comprise 13.42 grams per wipe. Wipe Content = 13.42 g x [% Wt] / 454 g per pound
2. Based on manufacturer Safety Data Sheet (SDS), the wipes are 100% volatile.
3. Chemical Abstract System (CAS) #'s and % Weight (WT) are provided by manufacturer SDS.
4. Maximum Usage (wipes/yr) determined by highest amount of wipe usage over the last 5 years, which occurred in 2019 (2018-2023). The facility operates on 3 shifts, so this is assumed to be a maximum usage.
5. Maximum Usage (boxes/yr) = Maximum Usage (wipes/yr) / 50 wipes per box.
6. VOC Emissions (lb/yr) = Maximum Usage (wipes/yr) x Wipe Isopropyl alcohol Content (lb/wipe).
7. VOC Emissions (Isopropyl alcohol) (tpy) = VOC Emissions (lb/yr) / 2000.
8. Alcohol Wipe Specifications are based on one wipe.
9. Wipe Content data was provided from the manufacturer SDS, and a bench scale test conducted by the client.
10. Based on the manufacturer SDS, the wipes are 9:1 by volume of Isopropyl Alcohol to Deionized Water.
11. yr = year
12. tpy = tons per year
13. lb = pound

IAC Alma
 1965 Williams Road, Alma, MI
 Facility Total Emission Calculations

	VOC Emissions (minus water)		Actual Individual HAP Emissions												Aggregate HAP Emissions	
			Xylene (CAS #1330-20-7)		Cumene (CAS #98-82-8)		Formaldehyde (CAS #50-00-0)		Ethenylbenzene (CAS #100-42-5)		HDI (CAS #822-06-0)		Chlorobenzene (CAS #108-90-7)			
	(lb/yr)	(tpy)	(lb/yr)	(tpy)	(lb/yr)	(tpy)	(lb/yr)	(tpy)	(lb/yr)	(tpy)	(lb/yr)	(tpy)	(lb/yr)	(tpy)	(lb/yr)	(tpy)
Camaro Line (FG-COATING2)	32,024.21	16.01	10.15	0.01	10.15	0.01	10.99	0.01	10.99	0.01	1.22	0.0006	-	-	43.51	0.02
Adhesive Line (EUADHESIVELN)	207.86	0.10	-	-	-	-	-	-	-	-	0.42	0.0002	37.24	0.02	37.65	0.02
Alcohol Wipes (All Lines)	372.45	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL =	32,604.51	16.30	10.15	0.01	10.15	0.01	10.99	0.01	10.99	0.01	1.64	0.0008	37.24	0.02	81.16	0.04

ATTACHMENT C

SDS and Manufacturer Information



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View (M)SDS Section :

[1](#)[2](#)[3](#)[4](#)[5](#)[6](#)[7](#)[8](#)[9](#)[10](#)[11](#)[12](#)[13](#)[14](#)[15](#)[16](#)**SAFETY DATA SHEET**

SECTION 1 : IDENTIFICATION

Product Name: **PSPP0032**
 Product Code: PSPP0032
 SDS Manufacturer Number: 3224LTDQTY
 Product Description: Presaturated wipes containing 90% Isopropyl alcohol, 10% deionized water
 Manufacturer Name: Contec, Inc.
 Address: 525 Locust Grove
 Spartanburg, South Carolina 29303
 USA
 Website: www.contecinc.com
 General Phone Number: +1-864-503-8333
 Emergency Phone Number: Chemtrec® US: 1-800-424-9300 International: 1-703-527-3887
 SDS Creation Date: August 22, 2014
 SDS Revision Date: April 03, 2019

NFPA

3

0

HMIS

Health Hazard	1
Fire Hazard	3
Reactivity	0
Personal Protection	X

SECTION 2 : HAZARD(S) IDENTIFICATION

GHS Pictograms:



Signal Word:

DANGER!

GHS Class:

Flammable Liquid, Category 2.
 Eye Irritant, Category 2.
 Specific Target Organ Toxicity, Single Exposure, Category 3.

Hazard Statements:

Highly flammable liquid and vapor.
 Causes serious eye irritation.
 May cause drowsiness or dizziness.

Precautionary Statements:

Keep away from heat/sparks/open flames — No smoking.
 In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.
 Wear protective gloves, protective clothing, and eye protection.
 Avoid breathing vapors.
 Store in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.
 IF IN EYES: Rinse cautiously with water for several minutes.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Emergency Overview:

DANGER! Flammable. Irritant. May cause drowsiness or dizziness.

Route of Exposure:

Eyes, Skin, Inhalation.

Potential Health Effects:

Eye:	Eye contact with product or vapors may result in irritation, redness, and blurred vision. May cause pain disproportionate to the level of irritation to eye tissues. Vapor may cause eye irritation experienced as mild discomfort and redness. May cause moderate corneal injury.
Skin:	May cause irritation. Repeated exposure may cause a burning sensation and dryness or cracking. Prolonged skin contact is unlikely to result in absorption of harmful amounts.
Inhalation:	Inhalation of vapors, fumes or mists of the product may be irritating to the respiratory system. Excessive exposure (400 ppm) may cause eye, nose and throat irritation. Higher levels may cause incoordination, confusion, hypotension, hypothermia, circulatory collapse, respiratory arrest, and death may follow a longer duration and higher levels. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death.
Ingestion:	May cause irritation. Ingesting large amounts may cause injury. May cause central nervous system depression, nausea and vomiting. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.
Chronic Health Effects:	Prolonged or repeated contact may cause skin irritation. Repeated or prolonged inhalation may cause toxic effects.
Signs/Symptoms:	Overexposure may cause headaches and dizziness. Signs and symptoms of excessive exposure include facial flushing, low blood pressure, irregular heartbeats.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions:	None generally recognized.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num.
Isopropyl alcohol	67-63-0	90 by Volume	200-661-7
Deionized water	7732-18-5	10 by Volume	231-791-2

SECTION 4 : FIRST AID MEASURES

Eye Contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact:	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 : FIRE FIGHTING MEASURES

Flash Point:	19 °C (67 °F)
Auto Ignition Temperature:	425°C (797°F) per ASTM E - 2155 for 100% isopropyl alcohol
Lower Flammable/Explosive Limit:	2.0 % by volume
Upper Flammable/Explosive Limit:	12.0 % by volume
Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.
Unsuitable Media:	Do not use a solid water stream as it may scatter and spread fire.
Protective Equipment:	In the event of a fire, wear Self-Contained Breathing Apparatus (SCBA), approved or in accordance to NFPA, NIOSH, and/or European Standard EN 137 guidelines or equivalent and full protective gear.
Unusual Fire Hazards:	Material burns with an invisible flame
Hazardous Combustion Byproducts:	Oxides of carbon, oxides of nitrogen and other organic substances may be formed.

Universal Fire And Explosion Hazards: Vapors are heavier than air and may travel along the ground or may be moved by ventilation to locations distant from the point of material handling or release.

NFPA Ratings:

NFPA Health:	1
NFPA Flammability:	3
NFPA Reactivity:	0

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Avoid breathing vapor, aerosol or mist. Avoid contact with skin, eyes and clothing.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways. Comply with all government regulations on reporting releases.
Methods for containment:	Spills are very unlikely, because the wiper fabric has absorbed the liquid solvent solution. In the event of a spill, contain with an inert absorbent.
Methods for cleanup:	Remove all sources of ignition. Collect the wipes with a non sparking tool and absorb or wipe any residual liquids. Place in a suitable container for proper disposal. Use appropriate protective apparel as described in Section 8. Avoid contact with skin and eyes.

SECTION 7 : HANDLING and STORAGE

Handling:	Use with adequate ventilation. Avoid breathing vapor and fumes. Use only in accordance with directions.
Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use. Keep away from aldehydes, halogenated organics, halogens, strong acids, strong oxidizers.
Hygiene Practices:	Wash thoroughly after handling. Avoid inhaling vapors, mists, or fumes.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection:	Safety glasses with side shields must be worn at all times. If splash hazard exists, wear chemical splash goggles and/or face shield.
Hand Protection Description:	Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data. Preferred glove materials include: polyethylene, neoprene, chlorinated polyethylene, natural rubber (latex), polyvinyl chloride (PVC or vinyl), nitrile/butadiene rubber (nitrile or NBR), ethyl vinyl alcohol laminate (EVAL). Avoid gloves made of polyvinyl alcohol (PVA).
Respiratory Protection:	Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Comply with the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PPE Pictograms:



EXPOSURE GUIDELINES

Isopropyl alcohol :

Guideline ACGIH:	TLV-TWA: 200 ppm TLV-STEL: 400 ppm
Guideline OSHA:	PEL-TWA: 400 ppm

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Liquid presaturated wipes.
Odor:	Alcohol-like
Odor Threshold:	Not determined.
Boiling Point:	82 - 100°C (180 - 212 °F)
Melting Point:	Not determined.
Specific Gravity:	0.816 @ 20°C (68°F)
Solubility:	Soluble in water.
Vapor Density:	>1 (Air = 1)
Vapor Pressure:	4.1 - 4.4 kPa (31 - 33 mm Hg) @ 20°C (68°F)
Percent Volatile:	100%
Evaporation Rate:	2 (Butyl Acetate = 1)
pH:	Not determined.
Viscosity:	Not determined.
Coefficient of Water/Oil Distribution:	Not determined.
Flash Point:	19 °C (67 °F)
Auto Ignition Temperature:	425°C (797°F) per ASTM E - 2155 for 100% isopropyl alcohol

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Keep away from heat, ignition sources and incompatible materials.
Incompatible Materials:	Aldehydes, halogenated organics, halogens, strong acids, strong oxidizers.

SECTION 11 : TOXICOLOGICAL INFORMATION

Isopropyl alcohol :

Eye:	Eye - Rabbit Standard Draize test.: 100 mg Eye - Rabbit Standard Draize test.: 10 mg Eye - Rabbit Standard Draize test.: 100 mg/24H (RTECS)
Skin:	Administration onto the skin - Rabbit Standard Draize test.: 500 mg Administration onto the skin - Rabbit LD50: 12800 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)
Inhalation:	Inhalation - Rat LC50: 16000 ppm/8H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 53000 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] Inhalation - Rat LC50: 72600 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] (RTECS)
Ingestion:	Oral - Rat LD50: 5045 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - General anesthetic] Oral - Rat LD50: 5000 mg/kg [Behavioral - General anesthetic] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:	No ecotoxicity data was found for the product.
Environmental Fate:	No environmental information found for this product.

Isopropyl alcohol :

Ecotoxicity:	LC50; Species: 1400000 ug/L for 48 hr Crangon crangon (Common Shrimp) LC50; 10000000 ug/L for 24 hr Species: Daphnia magna (Water Flea) LD50; >5000 mg/L for 24 hr Species: Carassius auratus (goldfish) LC50; 11,130 mg/L for 48 hr Species: Pimephales promelas (fathead minnows)
Environmental Fate:	Isopropanol is expected to have very high mobility in soil.
Bioaccumulation:	Bioconcentration in aquatic organisms is low.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal:	Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 or the EU Directive 2008/98/EC on waste for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state, local, or provincial waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines. WARNING! Used wipes may catch fire if improperly discarded or stored near ignition sources.
Contaminated Packaging:	Do not reuse containers without proper cleaning or reconditioning.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Solids Containing Flammable Liquid, n.o.s. (Isopropanol). (Limited Quantity)
DOT UN Number:	UN3175 (Limited Quantity)
DOT Hazard Class:	4.1
DOT Packing Group:	II
IATA Shipping Name:	Solids Containing Flammable Liquid, n.o.s. (Isopropanol).
IATA UN Number:	UN3175`
IATA Hazard Class:	4.1
IATA Packing Group:	II
IMDG UN Number :	UN3175 (Limited Quantity)
IMDG Shipping Name :	Solids Containing Flammable Liquid, n.o.s. (Isopropanol). (Limited Quantity)
IMDG Hazard Class :	4.1
IMDG Packing Group :	II
Marine Pollutant:	No.

SECTION 15 : REGULATORY INFORMATION

Canada WHMIS:	MacIsaac & Associates 440 Gloucester Street, Suite 2111 Ottawa, Ontario, K1R 7T8 Canada +1 (613) 236-2250 Controlled - Class: B2 Flammable Liquid. Controlled - Class: D2B Toxic
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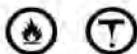
Isopropyl alcohol :

TSCA Inventory Status:	Listed
Canada DSL:	Listed
EC Number:	200-661-7

Deionized water :

EC Number:	231-791-2
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WHMIS Pictograms:



SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	1
HMIS Fire Hazard:	3
HMIS Reactivity:	0
HMIS Personal Protection:	X

SDS Creation Date: August 22, 2014

SDS Revision Date: April 03, 2019

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			Gallons/month (spreadsheet to be completed by the 15th of each month for the previous month)												Gallons/month (spreadsheet to be complete						
Emission Unit	Alma Part number	Product ID	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	
EU-OldPaintLine		396W Series																			
FG-Coating2 (Camaro Line)(Old)		396W Series	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
		Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FG-Coating2 (Camaro Line)	400NACT	AWXL-0256	166.00	137.00	141.00	176.00	106.00	256.00	219.00	17.00	109.00	107.00	70.00	75.00	145.00	203.00	190.00	176.00	235.00	175.00	
	463NBLK	AWDF-9397	630.00	490.00	317.00	710.00	605.00	787.00	596.00	418.00	168.00	362.00	283.00	253.00	516.00	725.00	684.00	592.00	846.00	895.00	
	441585W	JA6A 585W38A								97.00	91.00	49.00	66.00	16.00	39.00	0.00	59.00	66.00	109.00	25.00	
	442HARD	SL10								9.00	43.00	50.00	12.00	7.00	1.00	7.00	14.00	26.00	49.00	5.00	
		Subtotal	796.00	627.00	458.00	886.00	711.00	1043.00	815.00	541.00	411.00	568.00	431.00	351.00	701.00	935.00	947.00	860.00	1239.00	1100.00	
EU-AdhesiveLn		PPG T8085																			
		CI-5608 BG (Diverstak)																			
		CI-6507 A (Diverstak)																			
		Subtotal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

NAME: _____

1579.00
5619.00
319.00
121.00

Not in use

IAC Alma to input gallon amount each month.

QAD menu 34.5.3.2

Begin-End+Rec'd

IAC ALMA, LLC COATING INFORMATION

Emission Units	Product ID	Color	Density lb/gal ¹	VOC Content		HAP ¹	TAC	CAS #	HAP Content % WT	Notes	
				with water lb/gal ¹	minus water lb/gal ¹						
FG-Coating OldPaintLine & Camaro Line ²	396W24313C (4720DX9)	Black	8.79	1.19	2.82	Formaldehyde	No TACs ⁷	50-00-0	0.10%	RedSpot EDS dated 11/23/2015	
						ethenyl - benzene		100-42-5	0.10%		
FG-Coating Camaro Line ²	AWXL-0256 (4000ACT) Hardner	Clear	9.230	3.00	3.06	Hexamethylene diisocyanate (HDI)	No TACs ⁷	822-06-0	0.23%	Mix Parts = 1	
						Xylene		1330-20-7	0.23%	Was present in United Paints, removed in Axalta. Date of product change unknown, HAPs removed for 2020 forward.	
						Cumene		98-82-8	0.16%	Was present in United Paints, removed in Axalta. Date of product change unknown, HAPs removed for 2020 forward.	
	AWDF-9397 (463BLCK)	Black	9.190	2.90	2.80	No HAPs	No TACs ⁷			Mix Parts = 3.5	
	As applied Hardener + Paint ⁴	-			2.86						This is the as applied VOC content ⁴
	Red Spot JA6A 585W38A Paint	Black	8.754	0.09	0.41	No HAPs	No TACs ⁷				Mix Parts = 2.10
	SL10 Hardener	Clear	8.462	0.54	0.94	Hexamethylene diisocyanate (HDI)	No TACs ⁷	822-06-0	1.00%	Mix Parts = 1.0	
						Cumene		98-82-8	0.10%		
						Xylene		1330-20-7	0.10%		
	As applied Hardener + Paint	-			0.58						This is the as applied VOC content ⁸
EU-AdhesiveLn ³	PPG T8085		9.10	0.01	0.03	Chlorobenzene	No TACs ⁷	108-90-7	1.5%		
EU-AdhesiveLn New ³	CI-5608 BG (Hardener)	Green	9.63		1.52	hexamethylene diisocyanate (HDI)	No TACs ⁷	822-06-0	3.86%	Mix Part 5.5.	
	CI-6507 (Adhesive)	White	8.92		0.02	Vinyl Acetate	No TACs ⁷	108054	45.00%	Mix Part 100. Vinyl Acetate not located in 5/5/2015 SDS or 6/8/2020 RTI Analytical Report; HAP removed for 2020 forward.	
	As applied Hardener + Adhesive ⁵				0.10					This is the as applied VOC content ⁵	

Notes:

- Where values conflict between the SDS, Technical Data Sheet (TDS), or Environmental Data Sheet (EDS), the worst case value will be used.
- FG-Coating OldPaintLine & Camaro Line Notes:
 - Product 396W24313C: Density based on Redspot SDS dated 5/3/2017. VOC content (with water & minus water) and chemical composition based on RedSpot EDS dated 11/23/2015.
 - Product AWXL-0256: Density and VOC content (minus water) based on Axalta TDS dated 3/19/2019. VOC content (with water) and chemical composition based on Axalta EDS dated 3/5/2020.
 - Product AWDF-9397: Density based on Axalta TDS dated 3/27/2020. VOC content (minus water & with water) and chemical composition based on Axalta EDS dated 3/16/2020.
 - Product mix ratio 3.5 parts AWDF to 1 part AWXL.
 - Product JA6A 585W38A: Density based on Redspot SDS dated 02/15/2019. VOC contents (with water & minus water) and chemical composition based on Redspot EDS dated 05/12/2022.
 - Product SL10: Density based on Redspot SDS dated 03/21/2022. VOC contents (with water & minus water) and chemical composition based on Redspot EDS dated 03/21/2022.
 - Product mix ratio 2.1 parts JA6A to 1 part SL10.
 - VOC content permit limit (minus water) as applied for FG-Coating = 3.5 lb/gal.
- EU-Adhesive Line Notes:
 - Product PPG T8085: Density and chemical composition based on PPG SDS dated 5/26/2011. VOC content (minus water & with water) based on PPG EDS dated 6/20/2011.
 - Product CI-5608: Density, VOC (minus water), and chemical composition based on results of RTI Analytical Report dated 6/8/2020.
 - Product CI-6507: Density and chemical components based on results of RTI Analytical Report dated 6/8/2020. VOC content (minus water) based on Diversitak SDS dated 5/5/2015 as RTI Analytical Report indicated VOC content as 'ND'.
 - Product mix ratio 100 parts 6507 to 5.5 parts 5608.
 - VOC content permit limit (minus water) as applied for EU-AdhesiveLn = 0.3 lb/gal.
- VOC content (minus water) as applied = ((3.5 x 2.8) + (1 x 3.06)) / 4.5 = 2.86 lb/gal.
- VOC content (minus water) as applied = ((100x0.02)+(5.5x1.52))/105.5 = 0.10 lb/gal.
- VOC Content with a green marker is compliant with Permit 170-791, a yellow marker is compliant and should be observed closely, a red marker is non-compliant
- No TACs means that only TACs specified in the permit requiring tracking, it does not mean that there are not TACs in the material.
- VOC content (minus water) as applied = ((2.1 x 0.41) + (1 x 0.94)) / 3.1 = 0.58 lb/gal.

Average Density (lb/gal)	8.89
Average VOC Content minus water (lb/gal)	2.00
Average VOC content (%)	0.23

 = Material Constituent discontinued, only remains present for 12-month rolling average calculations or service

				HAP Emissions lbs/month												2023 HAP Emissions lbs/																	
Emission Unit	Product ID	CAS#		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	
FG-Coating2 (Camaro Line)(Old)	396W24313C	Formaldehyde	50-00-0	1.30	2.64	0.00	0.00	0.00	1.04	1.41	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		Ethyl - benzene	100-42-5	1.30	2.64	0.00	0.00	0.00	1.04	1.41	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Emission Unit	Product ID	CAS#		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	
			AWXL-0256	HDI	822-06-0	0.04	0.04	0.00	0.00	0.00	0.01	0.10	0.04	0.04	0.00	0.03	0.03	0.03	0.02	0.00	0.05	0.05	0.00	0.02	0.02	0.01	0.01	0.03	0.04	0.04	0.04	0.05	0.04
				Xylene ³	1330-20-7																												
				Cumene ³	98-82-8																												
			FG-Coating2 (Camaro Line)	HDI	822-06-0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.04	0.01	0.01	0.00	0.01	0.01	0.02	0.04	0.00
	5L10 Hardener	Xylene	1330-20-7																														
		Cumene	98-82-8																														
Emission Unit	Product ID	CAS#		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	
			PPG T8085	Chlorobenzene	108-90-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			EU-Adhesiveln	CI-5608 BG (Hardener)	HDI	822-06-0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				CI-6507 (Adhesive)	Vinyl Acetate ³	108-05-4																											
Aggregate HAPs (lbs/month)				2.64	5.31	0.00	0.00	0.00	2.08	2.91	0.61	0.04	0.04	0.00	0.03	0.03	0.03	0.02	0.00	0.05	0.05	0.01	0.06	0.07	0.03	0.02	0.03	0.05	0.05	0.06	0.09	0.04	
Aggregate HAPs (tons/month)				0.001	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Rolling Aggregate HAPs (TPY)				###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###		
Rolling Individual HAPs (TPY) ²				0.012	0.012	0.010	0.009	0.007	0.006	0.006	0.006	0.005	0.004	0.004	0.003	0.003	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Formaldehyde				0.012	0.012	0.010	0.009	0.007	0.006	0.006	0.006	0.005	0.004	0.003	0.003	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
ethyl - benzene				0.012	0.012	0.010	0.009	0.007	0.006	0.006	0.006	0.005	0.004	0.003	0.003	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Xylene				0.032	0.030	0.029	0.025	0.019	0.016	0.011	0.009	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Cumene ³				0.022	0.021	0.020	0.017	0.013	0.011	0.009	0.006	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Chlorobenzene				0.015	0.013	0.009	0.008	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
HDI				0.050	0.046	0.041	0.033	0.027	0.022	0.017	0.011	0.007	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Vinyl Acetate				2.810	2.609	2.107	1.706	1.305	1.204	0.903	0.502	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			

- Notes:
- Rolling aggregate HAP limit is 22.5 TPY based on 12-month rolling basis.
 - Rolling aggregate HAP totals with a green marker is compliant with Permit 170-79, a yellow marker is compliant (but > 9 TPY) and should be observed closely, a red marker is non-compliant (>22.5 TPY).
 - Rolling individual HAP limit is 9.0 TPY based on 12-month rolling basis.
 - Rolling individual HAP totals with a green marker is compliant with Permit 170-79, a yellow marker is compliant (but > 5 TPY) and should be observed closely, a red marker is non-compliant (> 9 TPY).
 - Cumene individual HAP limit is 152.4 lbs/yr (0.0762 TPY) on a 12-month rolling basis.
 - The green marker is compliant with Permit, a yellow marker is compliant (but > 0.05), and red marker is non-compliant (>0.0762 TPY).
 - Rolling aggregate HAPs are based on the total combined emissions (tons) for the previous 12 months.
 - Xylene and Cumene no longer present in Axalta SDS, TDS, or EDS for this product as of 2020. Vinyl Acetate no longer present in Diversitak SDS, TDS, or EDS for this product as of 2020.
 - FG-Coating2 (Camaro Line) consists of EU-Manual and EU-Robotic.
 - HDI emissions are minimal due to its use as a reactant to form solid material. As a result, a general assumption is that only 1% of HDI is emitted. HDI emission tracking was updated in 2020 to reflect this assumption.

HAP Emissions (lbs/month) Formula:

By Weight: Coating used/month (from coating usage tab) x % HAPs by weight from coating specs tab x coating density from coating specs tab to convert to pounds

 = Material discontinued, only remains present for 12-month rolling average calculations or service



24671 Telegraph Road
 Southfield, MI 48033-3035
 Tel: 248.353.3035
 Fax: 248.353.4865
 www.unitedpaint.com

TECHNICAL DATA SHEET

Date May 4, 2021
 Supersedes May 19, 2016

SoftWear™

Product Data	Code	<u>AWDF-9397-IAC</u>
	Description	<u>Two-Component Waterborne High Touch Interior Soft Coating</u>
	Name of Product	<u>600R-PGC Jet Black</u>
	End Use	<u>Automotive Plastics</u>

Physical Data	Packaged Viscosity	<u>50 - 55 sec. #3 Zahn (EZ)</u>
	Weight/Gallon	<u>8.89 ± 0.50 lb/gal</u>
	% Weight Solids	<u>31.13 ± 2.00</u>
	% Volume Solids	<u>25.66 ± 2.00</u>
	% Gloss	<u>0.6 – 1.0 on a 60° glossmeter</u>
	Package V.O.C.	<u>2.95 ± 0.15 lb/gal (minus exempt)</u> <u>1.21 ± 0.15 lb/gal (including exempt)</u>

Application Data	Method of Application	<u>Spray</u>
	Application Viscosity	<u>Dependent upon spray equipment.</u>
	Reduction/Thinner	<u>Up to 10% with Water</u>
	Substrate	<u>ABS, PC, PC/ABS Blends, TPO/PP with Flame Treatment or Adhesion Promoter</u>
	Clean-up Thinner	<u>Water for Wet Paint, MEK for Dried Paint</u>
	Curing Conditions	<u>Minimum 30 Minutes @ 181°F(83°C) part temperature</u>
	Flash Time	<u>10 Minutes Minimum</u>
	Dry Film Thickness	<u>1.8 – 2.2 mil recommended</u>
	Line Flush for Part A	<u>Water</u>
	Line Flush for Part B	<u>Butyl Acetate</u>

Comments	Mixing Instructions:		
	Component A: AWDF-9397-IAC	Volume: 3.5	Weight: 3.5
	Component B: AWXL-0256	Volume: 1.0	Weight: 1.0
	<u>Add Component B to Component A while mixing. Automatic two component mixing equipment preferred.</u>		
	<u>Component A+B Pot Life = 2 hours.</u>		
	<u>Component A Shelf Life = 6 months from date of manufacture</u>		
	<u>Component B Shelf Life = 6 months from date of manufacture in unopened containers @ 77°F. Note: Keep free from all moisture. See SDS for isocyanate cautionary information.</u>		
	<u>Allow painted parts to post cure for 3 days prior to testing</u>		

Disclaimer: The information herein is general information designed to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. We warrant that our products will meet our written specifications. Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.



24671 Telegraph Road
Southfield, MI 48033-3035
Tel: 248.353.3035
Fax: 248.353.4865
www.unitedpaint.com

TECHNICAL DATA SHEET

Date April 14, 2016
Supersedes February 13, 2013

Product Data	Code	<u>AWXL-0256</u>
	Name of Product	<u>Crosslinker (Hardener) for 2K W/R Systems</u>
	Color	<u>N/A</u>
	End Use	<u>See above</u>

Physical Data	Packaged Viscosity	<u>25 – 30 seconds #2 Zahn (EZ) Cup</u>
	Weight/Gallon	<u>9.03 ± 0.25 lb/gal</u>
	% Weight Solids	<u>67.73 ± 2.00</u>
	% Volume Solids	<u>63.05 ± 2.00</u>
	% Gloss	<u>N/A</u>
	Package V.O.C.	<u>2.91 ± 0.15 lb/gal (minus exempt)</u> <u>2.91 ± 0.15 lb/gal (including exempt)</u>

Application Data	Method of Application	<u>HVLP or Conventional Spray</u>
	Application Viscosity	<u>As directed by Component A</u>
	Reduction	<u>See Component A</u>
	Thinner	<u>See Component A</u>
	Substrate	<u>See Component A</u>
	Clean-up Thinner	<u>MEK</u>
	Curing Conditions	<u>See Component A</u>
	Flash Time	<u>N/A</u>
	Dry Film Thickness	<u>See Component A</u>

Comments	<u>Used in combination with a Part A Component for 2 pack systems.</u>
	<u>Use extreme caution when working with this product. Gloves, goggles, and respirator must be worn when hand spraying application is taking place.</u>
	<u>Do NOT breathe vapors!!! Refer to product MSDS for further information.</u>
	<u>This product reacts with water, keep container capped tight when storing.</u>
	<u>Product must be mixed thoroughly prior to use.</u>
	<u>Product is nitrogen blanketed. If product is not used in its entirety, remaining material must be nitrogen blanketed to ensure continued viability until used completely.</u>
	<u></u>

Disclaimer: The information herein is general information designed to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. We warrant that our products will meet our written specifications. Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.

			VOC Emissions lbs/month													
Emission Unit	Product ID	¹ VOC Content minus water (lbs/gal)	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
FG-Coating2 (Camaro Line)(Old)	EU-OldPaintLine 396W24313C	2.82	416.66	844.59	0.00	0.00	0.00	332.21	450.45	90.09	0.00	0.00	0.00	0.00	0.00	0.00

Emission Unit	Product ID	¹ VOC Content minus water (lbs/gal)	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
FG-Coating2 (Camaro Line)	AWXL-0256	3.06	520.20	563.04	0.00	0.00	12.24	140.76	1395.36	612.00	504.90	507.96	27.54	462.06	367.20	449.82
	AWDF-9397	2.80	1702.40	1845.20	0.00	0.00	42.00	1741.60	2973.60	2142.00	1747.20	1568.00	851.20	3816.40	1688.40	1204.00
	SL Waterborne Hardener	0.94	1702.40	1845.20	0.00	0.00	42.00	1741.60	2973.60	2142.00	1747.20	1568.00	851.20	3816.40	-	-
	Red Spot JA6A Paint	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
Total Paint VOCs (tons/month)			1.32	1.63	0.00	0.00	0.03	1.11	2.41	1.42	1.13	1.04	0.44	2.14	1.03	0.83

Rolling Paint VOCs (TPY)²	23.97	24.21	21.41	19.38	16.16	14.28	14.51	13.27	12.56	13.23	11.62	12.65	12.36	11.56
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Emission Unit	Product ID	¹ VOC Content minus water (lbs/gal)	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
EU-AdhesiveLn	PPG T8085	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CI-5608 BG (Hardener)	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CI-6507 (Adhesive)	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Adhesive VOCs (tons/month)			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Rolling Adhesive VOCs (TPY)²	0.08	0.07	0.06	0.04	0.03	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00
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- Notes:**
- Material are tracked on a gallon used basis and not on an as applied basis. Therefore, the SDS VOC value (not as applied) is used to calculate emissions. This is also the more conservative estimate of emissions. See Coating Spec Tab for VOC Content with water or as applied.
 - FG-Coating2 VOC limit is 64.2 TPY based on 12-month rolling basis.
 - Rolling aggregate VOC totals with a green marker is compliant with Permit 170-79I, a yellow marker is compliant (but > 55 TPY) and should be observed closely, a red marker is non-compliant (>64.2 TPY).
 - EU-AdhesiveLn VOC limit is 0.75 TPY based on 12-month rolling basis.
 - Rolling aggregate VOC totals with a green marker is compliant with Permit 170-79I, a yellow marker is compliant (but > 0.65 TPY) and should be observed closely, a red marker is non-compliant (>0.75 TPY).

2021 VOC Emissions lbs/month										2022 VOC Emissions lbs/month											
Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
226.44	24.48	39.78	263.16	712.98	563.04	247.86	281.52	247.86	324.36	507.96	419.22	431.46	538.56	324.36	783.36	670.14	52.02	333.54	327.42	214.20	229.50
652.40	78.40	131.60	828.80	2388.40	1509.20	806.40	1232.00	926.80	1086.40	1764.00	1372.00	887.60	1988.00	1694.00	2203.60	1668.80	1170.40	470.40	1013.60	792.40	708.40
-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.42	40.24	46.80	11.23	6.55
-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.75	37.29	20.08	27.05	6.56
0.44	0.05	0.09	0.55	1.55	1.04	0.53	0.76	0.59	0.71	1.14	0.90	0.66	1.26	1.01	1.49	1.17	0.64	0.44	0.70	0.52	0.48
12.00	12.05	12.11	11.55	10.69	10.31	9.71	9.43	9.57	8.14	8.25	8.32	8.54	9.75	10.67	11.62	11.24	10.84	10.75	10.70	10.63	10.40
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

d content.

Luplow, Michelle (EGLE)

From: Jeremiah Haller <JHaller@iacgroup.com>
Sent: Friday, September 22, 2023 2:55 PM
To: Luplow, Michelle (EGLE)
Subject: RE: [EXT] IAC Alma Alcohol Wipe Exemption Memo

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Here is the answer on the HDI question:

“Following up on the HDI question from Michelle. Sorry for the delay on this, we were searching for old items from EGLE, but couldn’t find any specific correspondence, as it was probably done over the phone. The HDI emission assumption in question can be answered with the following, and with the study here:

<https://www.atsdr.cdc.gov/ToxProfiles/tp120.pdf>

Hexamethylene diisocyanate (HDI) is a highly reactive synthetic chemical that is widely used in the production of polyurethane materials (Agency for Toxic Substances and Disease Registry 1998). Exposures to HDI are often associated with exposures to its prepolymers, which is widely used as a hardener in automobile and airplane paints, and which typically contains 0.5-1% unreacted HDI (Alexandersson et al. 1987; Hulse 1984; Karol and Hauth 1982). This information was presented to AQD permit engineers in 2014 when permitting/modifying the Camaro line. To be conservative, IAC Alma used the upper range (1%) of the unreacted HDI and assumed that to be emitted. “

Thank You,

Jeremy Haller
Engineering Manager
IAC Alma
1965 Williams rd.
Alma, Mi. 48801
(989) 698-6330

From: Luplow, Michelle (EGLE) <LuplowM1@michigan.gov>
Sent: Tuesday, September 19, 2023 1:34 PM
To: Jeremiah Haller <JHaller@iacgroup.com>
Subject: RE: [EXT] IAC Alma Alcohol Wipe Exemption Memo

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I appreciate you 😊 Thanks for your help in retrieving these records, Jeremy.

From: Jeremiah Haller <JHaller@iacgroup.com>
Sent: Tuesday, September 19, 2023 1:12 PM
To: Luplow, Michelle (EGLE) <LuplowM1@michigan.gov>
Subject: FW: [EXT] IAC Alma Alcohol Wipe Exemption Memo

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Here you go Michelle.

Thank You,

Jeremy Haller
Engineering Manager
IAC Alma
1965 Williams rd.
Alma, Mi. 48801
(989) 698-6330

From: Tanner Weekley <tweekley@bbande.com>
Sent: Tuesday, September 19, 2023 1:10 PM
To: Jeremiah Haller <JHaller@iacgroup.com>
Cc: Kira Fillar <kfillar@bbande.com>; Chiren Moore <Cmoore@bbande.com>
Subject: [EXT] IAC Alma Alcohol Wipe Exemption Memo

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Hi Jeremy,

Attached is the Alcohol Wipe Air Permit Exemption Memorandum. Please save this in your records, and provide to Michelle for her records. If you have any questions on it, please let us know.

Thanks!

Tanner Weekley, PE, CHMM | Environmental Engineer
BB&E, Inc. | Consulting Engineers & Professionals
235 E. Main St, Suite 107 | Northville, MI 48167
Office 248.489.9636 ext 304 | Cell 330.469.1434 | Fax 248.489.9646
www.bbände.com

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**AIR QUALITY DATA SHEET
UNITED PAINT AND CHEMICAL CORPORATION**

Date: 9/18/2023

The composition given below is the composition of the product AS FORMULATED. Variations may occur on individual batches because of adjustments made during production.

Product: AWDF-9397-IAC 600R-PGC JET BLACK 2K W/R SOFT FEEL

Product Density, LBGL:	8.89	Volatile Organic Compounds	
Non-Volatile	By Weight: 31.13 %	353.74	grams V.O.C./Liter (less Exempt)
	By Volume: 25.66 %	145.23	grams V.O.C./Liter
Volatile	By Weight: 68.87 %	2.95	pounds V.O.C./Gallon (less Exempt)
	By Volume: 74.34 %	1.21	pounds V.O.C./Gallon

C.A.S. Number	Solvent Description	Percent of Volatile	
		By Weight	By Volume
7732-18-5	Water	80.21	79.29
34590-94-8	Dipropylene Glycol Monomethyl Ether	17.16	17.80
108-01-0	N,N-Dimethylethanolamine	1.81	2.01
111-76-2	Ethylene Glycol M-Butyl Ether	0.82	0.90

TOTAL 100.0 100.0

% Water Content in Product: 55.24 58.94

% Organic Solvent Content in Product: 13.63 15.40

Organic Solvent Density (lb/gal): 7.88

Hazardous Air Pollutants:

lb/lb:	0.00
lb/gal:	0.00

The information accumulated here is believed to be accurate, however; United Paint & Chemical Corporation makes no warranty, express or implied regarding the accuracy of this data.

