

June 11, 2021

Via Electronic

Thomas Rhodes (<u>rhodes.thomas@deq.state.or.us</u>) CAO Source Test Coordinator Oregon Department of Environmental Quality 700 NE Multnomah Street, Suite 600 Portland, OR 97232

Re: CAO Submittal Review

Dear Mr. Rhodes:

Hydro Extrusion Portland, Inc. (Hydro) submitted a Cleaner Air Oregon (CAO) Toxic Air Contaminant (TAC) emissions inventory (emissions inventory) to the Oregon Department of Environmental Quality (DEQ) on February 12, 2021. At the request of DEQ, a revised emission inventory was submitted March 19, 2021. The DEQ issued a request for additional information to Hydro on May 21, 2021. The following responses are organized in the same manner as the DEQ's May 21, 2021 request letter, and each request made by the DEQ is shown in italics.

Comments

1. Many of the Safety Data Sheets (SDSs) contained conflicting composition ranges in Section 3 and Section 15. Please provide information from the manufacturer as to which section of the SDS contains the correct composition range or use the range that has a higher average value and revise the Inventory.

The environmental data sheets support the use of SDS data as applied in the emissions inventory. MFA and Hydro reached out to suppliers of the top-ranked products and requested their specific formulation data, which were provided in environmental data sheets. These sheets contain data that effectively lists the specific concentration of each product and are the basis of the data outlined in the product SDS. The environmental data sheets provided by the vendors support the concentrations of the various TACs applied to the emissions inventory. While the specific concentrations shown in the environmental data sheets may slightly vary from the average concentrations stated in the emissions inventory, these variations do not affect the ranking proposed in the initial emissions inventory submitted to the DEQ. The emissions inventory used the average of the more narrowly defined concentration ranges listed in either Section 3 or Section 15 of a given SDS.

The formulation data in the environmental data sheets does not significantly affect the risk-weighted value calculated for the top ranked chromate-containing products. In addition, using the SDS data as the basis of TAC emissions in the emission inventory results in a conservative risk-

weighted value for the non-chromate coatings. The data in the environmental data sheets significantly reduce the risk-weighted value calculated for the non-chromate coatings used in PTE calculations. See Table 1 for additional details.

Table 1 Weighted Emission Rate Comparison

			Weighted B	missions Rate	per Gallon	
Product	Source	Residential Chronic Cancer	Non- Residential Cancer	Residential Chronic Noncancer	Non- Residential Chronic Noncancer	Acute
Chromate Containing	Coatings					
	SDS			0.090	0.0200	
Fluroprime Gray	EDS			0.088	0.0195	
	Percent Change (%)			-2.25	-2.30	
Universal Chrome Primer	SDS	39.9	1.24		1	4.12E-03
	EDS	41.9	1.30			4.33E-03
1 111101	Percent Change (%)	5.15	5,15			5.15
Non-Chromate Conto	ining Coatings					
Character Constitution	SDS			0.353	0.0801	
Fluropon Spcf Ultra Pure White	EDS			0.184	0.0418	
	Percent Change (%)			-47.8	-47.8	
Ivory Polylure 1500	SDS	0.178	0.015			
	EDS	0.094	7.77E-03			
	Percent Change (%)	-47.4	-47.4			
Chocolate Latte (1)						1.46E-03

¹ Chocolate Latte is mixed in-house. Reported emissions are based on vendor supplied data.

Given that the risk-weighted emission rates calculated using the environmental data sheets shown in Table 1 are either similar to or significantly less than those calculated using the SDS data, we believe the emissions inventory was developed using the correct methodology and no further analysis is needed.

2. Naphtha is listed as a solvent in many of the SDSs. Please revise the Inventory to include reportable TACs from naphtha or provide information from the manufacturer that those TACs are already accounted for in the SDSs.

Our understanding based on conversations with product vendors is that if Solvent naphtha, petroleum, light aromatic (CAS 64742-95-6), or Solvent naphtha, petroleum, heavy aromatic (CAS 64742-94-5) is included as a constituent in coatings, any reportable HAP and SARA 313 reportable substances in the naphtha are included in the concentration ranges of the constituents in Section 3 and/or Section 15 of the SDS for that coating. In addition, a product vendor supplied the environmental data sheets for Solvent naphtha, petroleum, light aromatic and Solvent naphtha, petroleum, heavy aromatic. As a result, no further revisions to the emissions inventory related to naphtha are necessary.

3. Ethene, 1,1-difluoro-, homopolymer (polyvinylidene fluoride or PVDF) is listed in most of the SDSs. Ethene, 1,1-difluoro-, homopolymer is a reportable TAC as a perfluorinated compound (PFC). Please revise the Inventory to include ethene, 1,1-difluoro-, homopolymer emissions as a PFC.

The emissions inventory has been revised to include Ethene, 1,1-difluoro-, homopolymer.

- 4. Not all of the metals in the coatings are accounted for in the Inventory:
 - a) Please revise the Inventory to include zinc from the use of cadmium zinc sulfide yellow. Report zinc emissions as zinc and compounds under CAS Number 7440-66-6; and
 - b) The SDSs for pigments used onsite appear to contain additional metals that are not listed in the Inventory. Please revise the Inventory to include those additional metals, or provide written confirmation from the manufacturer that those metals are present only in trace amounts.

Hydro understands that the DEQ is requesting to parse out compounds containing multiple reportable metals as their individual constituents. The emissions inventory has been revised to include zinc emissions as zinc and compounds under CAS 7440-66-6 from the use of cadmium zinc sulfide yellow. The revision includes additional reportable metals from pigments listed in the SDSs.

5. PTE emissions assume a capture efficiency of 100% based on facility improvements. Source testing with EPA Method 204 will be required to demonstrate the 100% capture efficiency. Source testing must be completed by July 21, 2021. Alternatively, the facility may use the 92% capture efficiency per the current permit for PTE emissions.

Hydro will demonstrate 100% capture efficiency by performing Permanent Total Enclosure (PTE) testing according to EPA Method 204. Hydro has been implementing improvements to the enclosures but has additional work to complete to ensure a successful outcome of all criteria of the EPA Method 204 testing. The additional work will require coordination of contractors to be scheduled around production to minimize process downtime.

Submittal Deadlines

1. Submit the revised emissions inventory by June 21, 2021.

In an effort to minimize the potential for duplicative effort, Hydro is requesting that the emissions inventory submittal deadline be contingent on the DEQ approving the proposed responses to questions related to SDS data review. Based on our conversation with the DEQ on June 8, 2021, Hydro proposes to submit a revised emissions inventory within two weeks of the DEQ approving Hydro's responses to Comments 1 through 4 above.

2. Conduct source testing to verify 100% capture efficiency by July 21, 2021. The source test plan is due to DEQ 30 days before the test; the source test results are due to DEQ 30 days after completing the test.

Based on our conversation with the DEQ on June 8, 2021, Hydro is requesting a short extension of time to complete proposed enclosure improvements and confirm source test company availability. Hydro proposes the following timeline:

- Hydro will submit the source test plan a minimum of 30 days before EPA Method 204 testing;
- Hydro will conduct Method 204 testing by August 20, 2021; and
- Hydro will submit the final results of the source test to the DEQ within 60 days of conducting the test.

Hydro appreciates DEQ's consideration of this request.

In addition, as briefly discussed with DEQ on June 11, 2021, Hydro is currently evaluating the decommissioning of its Horizontal Paint Line, which it currently anticipates occurring in September 2021. Any changes to the plant operations as a result of the Horizontal Paint Line decommissioning will be summarized in the revised emissions inventory and source test plan.

Please contact me if you have any questions about the contents of this letter, or the attachments.

Thank you,

Jennifer Garcia

Regional Environmental Engineer - West

Hydro Extrusion Portland, Inc.

cc:

Jeremy Basler (Hydro)

Leslie Riley (MFA)

Keith Johnson (DEQ)

Kenzie Billings (DEQ)

J.R. Giska (DEQ)

Matt Hoffman (DEQ)

Weston Li (DEQ)

Attachments:

Environmental Data Sheets



Environmental Data

P.O. Box 1461 Minneapolis, MN 55440 800-328-8044

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Date: May 17, 2021

Product Number: 732X311

Product Description: FLUROPRIME GRAY

Specifications		
Physical Characteristics:	Lb/Gal	g/L
Density of Product	10.56	1265
Density of Organic Solvent	7.82	937
Non-Volatile Mass (%):	51.62	51.62
Non-Volatile Volume (%):	34.64	34.64
Total Volatiles by Weight (%):	48.38	48.38
H20 by Weight (%):	0.00	0.00
H20 by Volume (%):	0.00	0.00
Exempts by Weight (%):	0.00	0.00
Exempts by Volume (%):	0.00	0.00
VOC by Weight (%):	48.38	48.38
VOC Information:	<u> </u>	
Coating VOC (VOC less water and exempt solvents):	5.11	612
Material VOC (VOC with water and exempt solvents):	5.11	612
Wgt VOC/Vol Solids:	14.75	1767
Wgt VOC/Wgt of Solids*:	0.94	0.94
HAP Information:	•	
Wgt VHAP/Wgt of Solids*:	0.41	0.41
Wgt VHAP/Vol of Solids:	6.44	772
Wgt VHAP/Vol of Product:	2.23	267
% VHAP:	21.14	21.14
Wgt Total HAP/Wgt of Solids*:	0.45	0.45
Wgt Total HAP/Vol of Solids:	7.06	846
Wgt Total HAP/Vol of Product:	2.44	293
% Total HAP:	23.15	23.15
Photochemically Reactive (Rule-66 / CA-102):		YES
Mix Ratio:		***Not Available ***

^{*} Values represented Lb/Lb or g/g. Reported HAP information includes any HAP ingredients present below de minimis concentrations.





Volatile Composition						
Chemical Name	CAS Number	Weight %	Lb/Gal	g/L	Lb/Gal Solids	g/L Solids
Propylene glycol monomethyl ether	108-65-6	16.32	1.72	207	4.98	596
acetate						
Toluene	108-88-3	6.88	0.73	87	2.10	251
Dimethyl phthalate	131-11-3	4.38	0.46	55	1.34	160
Diethylene glycol monobutyl ether	112-34-5	3.91	0.41	49	1.19	143
Solvent naphtha, petroleum, light aromatic	64742-95-6	3.53	0.37	45	1.08	129
Ethylene glycol monobutyl ether acetate	112-07-2	3.05	0.32	39	0.93	111
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	2.82	0.30	36	0.86	103
Xylenes	1330-20-7	2.15	0.23	27	0.65	78
Benzene, trimethyl-	25551-13-7	1.84	0.19	23	0.56	67
Ethylbenzene	100-41-4	0.48	0.05	6	0.15	17
Cumene	98-82-8	0.23	0.02	3	0.07	8
Regulatory Information						
Chemical Name	CAS Number	Weight %	HAF)	SAR	A 313
Toluene	108-88-3	6.88	YES	3	YE	S
Dimethyl phthalate	131-11-3	4.38	YES	3	YE	S
Diethylene glycol monobutyl ether	112-34-5	3.91	YES	3	YES	
Ethylene glycol monobutyl ether acetate	112-07-2	3.05	YES	3	YE	ES
Xylenes	1330-20-7	2.15	YES	3	YE	S
Strontium chromate	7789-06-2	2.00	YES	3	YE	S
Ethylbenzene	100-41-4	0.48	YES	3	YE	S
Cumene	98-82-8	0.23	YES	3	YE	S

PPG Industries, Inc.

Environmental Data Sheet

Tuesday, May 25, 2021

Customer: HYDRO Extrusions

7933 NE 21st Ave Portland, OR 97211

USA

Barb Johnson

Product: UC118821 UNIVERSAL CHROME PRIMER

PRODUCT PHYSICAL CHARACTERISTICS:

WEIGHT PER GALLON:		10.38 lb/gal
DENSITY OF ORGANIC SOLVENT	BLEND:	7.34 lb/gal
	Weight	<u>Volume</u>
NON-VOLATILE:	60.7%	44.5%
VOLATILE:	39.3%	55.5%
PERCENT OF WATER:	0.0%	0.0%
PERCENT OF EXEMPTS:	0.0%	0.0%

VOC INFORMATION:

VOC/GAL LESS WATER (LESS EXEMPTS):	4.08 lb/gal	489 g/L
ACTUAL VOC/GAL (WITH WATER WITH EXEMPTS):	4.08 lb/gal	489 g/L
VOC PER GALLON OF SOLIDS:	9.17 lb/gal	1099 g/L
VOC PER POUND OF SOLIDS:	0.65 lb/lb	

Product is photochemically reactive as per SCAQMD rule 102

VOLATILE COMPOSITION: PERCENT OF TOTAL FORMULA:

Component	<u>Name</u>	<u>Weight</u>	<u>Volume</u>
64742-95-6	Solvent naphtha, petroleum, light aromatic	12.4	17.5
111-76-2	2-Butoxyethanol	9.3	12.9
95-63-6	1,2,4-Trimethylbenzene	7.6	10.8
71-36-3	1-Butanol	2.6	3.9
108-65-6	Propylene glycol monomethyl ether acetate	2.0	2.6
103-65-1	Propylbenzene	0.8	1.1
108-67-8	1,3,5-Trimethylbenzene	0.8	1.2
526-73-8	1,2,3-Trimethylbenzene	0.7	0.9
1330-20-7	Xylenes	0.6	0.9
98-82-8	CUMENE	0.3	0.4

0.2

REGULATORY INFORMATION BASED ON 100 GALLONS DEFAULT

Component	<u>Name</u>	<u>lb</u>	<u>kg</u>	HAPS	SARA
71-36-3	1-Butanol	26.44	11.99	No	Yes
95-63-6	1,2,4-Trimethylbenzene	79.06	35.86	No	Yes
98-82-8	CUMENE	3.02	1.37	Yes	No
*****	GLYCOL ETHERS (SARA REGULATED) UPDATED 5/13/2021	96.58	43.81	No	Yes
*****	CHROMIUM COMPOUNDS	114.41	51.90	Yes	Yes
*****	CHROMIUM IN CHROMIUM COMPOUNDS UPDATED 5/13/2021	28.77	13.05	Yes	Yes

POUND OF ORGANIC HAPS PER POUND OF SOLIDS: 0.00 POUND OF ORGANIC HAPS PER GALLON OF SOLIDS: 0.07 POUND OF ORGANIC HAPS PER GALLON OF PRODUCT: 0.03 PERCENT OF ORGANIC HAPS (VHAP): 0.3%

DISCLAIMER

This Environmental Data Sheet is not intended to replace the product's Material Safety Data Sheet.

The data contained in this Environmental Data Sheet is based on information provided to PPG by its suppliers and PPG's knowledge of PPG product formulations. PPG makes no representation or warranty regarding the accuracy of supplier furnished information or that this information or data will not change.

The information in this Environmental Data Sheet is not intended to and does not create legal rights or obligations. This information is provided for the sole use of PPG customers and is not for disclosure to competitors of PPG. PPG customers have an independent obligation to determine proper use of the information and that their use of the information is consistent with federal, state and local laws, rules and regulations.

Trace constituents present at levels less than 0.01 lb or kg are not included in the Regulatory Information section of this Environmental Data Sheet. Volatile HAPS present at levels less than 0.1% by weight for carcinogens and 1.0% for non-carcinogens will not be shown or will be indicated by a "No" in the Regulatory Section (under HAPS) of this Environmental Data Sheet.

Trace volatiles present at levels less than 0.1% are not listed individually in the volatile section of this EDS. Total trace volatiles is reported as "Total of remaining volatiles < 0.1%".

Chemical compounds generated as a result of the curing process of this coating are not included on this Environmental Data Sheet.

The USEPA listing of VOC exempt compounds [40CFR51.000(s)] is used in calculating VOC values.



Environmental Data

P.O. Box 1461 Minneapolis, MN 55440 800-328-8044

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Date: May 13, 2021

Product Number: 391B8987

Product Description: FLUROPON SPCL ULTRA PURE WHITE

Specifications		
Physical Characteristics:	Lb/Gal	g/L
Density of Product	10.05	1204
Density of Organic Solvent	7.75	929
Non-Volatile Mass (%):	44.82	44.82
Non-Volatile Volume (%):	28.48	28.48
Total Volatiles by Weight (%):	55.18	55.18
H20 by Weight (%):	0.00	0.00
H20 by Volume (%):	0.00	0.00
Exempts by Weight (%):	0.00	0.00
Exempts by Volume (%):	0.00	0.00
VOC by Weight (%):	55.18	55.18
VOC Information:	·	
Coating VOC (VOC less water and exempt solvents):	5.55	665
Material VOC (VOC with water and exempt solvents):	5.55	665
Wgt VOC/Vol Solids:	19.49	2335
Wgt VOC/Wgt of Solids*:	1.23	1.23
HAP Information:	<u>.</u>	
Wgt VHAP/Wgt of Solids*:	0.85	0.85
Wgt VHAP/Vol of Solids:	13.42	1608
Wgt VHAP/Vol of Product:	3.82	458
% VHAP:	37.99	37.99
Wgt Total HAP/Wgt of Solids*:	0.85	0.85
Wgt Total HAP/Vol of Solids:	13.43	1609
Wgt Total HAP/Vol of Product:	3.82	458
% Total HAP:	38.04	38.04
Photochemically Reactive (Rule-66 / CA-102):		YES
Mix Ratio:		***Not Available ***

^{*} Values represented Lb/Lb or g/g.

Reported HAP information includes any HAP ingredients present below de minimis concentrations.



Chemical Name	CAS Number	Weight %	Lb/Gal	g/L	Lb/Gal	g/L
					Solids	Solids
Toluene	108-88-3	9.17	0.92	110	3.23	388
Diethylene glycol monobutyl ether	112-34-5	9.13	0.92	110	3.22	386
Dimethyl phthalate	131-11-3	7.58	0.76	91	2.67	320
Xylenes	1330-20-7	5.40	0.54	65	1.91	228
Ethylene glycol monobutyl ether acetate	112-07-2	5.09	0.51	61	1.79	215
2,2,4-Trimethylpentane-1,3-diol monoisobutyrate	25265-77-4	4.83	0.49	58	1.71	204
Solvent naphtha, petroleum, light aromatic	64742-95-6	4.25	0.43	51	1.50	180
Benzene, trimethyl-	25551-13-7	2.20	0.22	26	0.78	93
Propylene glycol monomethyl ether acetate	108-65-6	1.92	0.19	23	0.68	81
Ethyl alcohol	64-17-5	1.65	0.17	20	0.58	70
Ethylbenzene	100-41-4	1.16	0.12	14	0.41	49
Cumene	98-82-8	0.28	0.03	3	0.10	12
Formaldehyde	50-00-0	0.0001	0.0000	<0.01	0.0000	0
Regulatory Information						
Chemical Name	CAS Number	Weight %	HAI)	SAR	A 313
Toluene	108-88-3	9.17	YES	3	YE	S
Diethylene glycol monobutyl ether	112-34-5	9.13	YES	3	YE	S
Dimethyl phthalate	131-11-3	7.58	YES	3	YE	S
Xylenes	1330-20-7	5.40	YES	3	YE	S
Ethylene glycol monobutyl ether acetate	112-07-2	5.09	YES	6	YE	ES
Ethylbenzene	100-41-4	1.16	YES	3	YE	ES
Cumene	98-82-8	0.28	YES	3	YE	ES
Formaldehyde	50-00-0	0.0001	YES	3	YE	- 9



Environmental Data

P.O. Box 1461 Minneapolis, MN 55440 800-328-8044

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Date: May 13, 2021

Product Number: PMW7882

Product Description: IVORY POLYLURE 1500

Specifications		
Physical Characteristics:	Lb/Gal	g/L
Density of Product	12.04	1443
Density of Organic Solvent	7.55	905
Non-Volatile Mass (%):	67.52	67.52
Non-Volatile Volume (%):	48.23	48.23
Total Volatiles by Weight (%):	32.48	32.48
H20 by Weight (%):	0.00	0.00
H20 by Volume (%):	0.00	0.00
Exempts by Weight (%):	0.00	0.00
Exempts by Volume (%):	0.00	0.00
VOC by Weight (%):	32.48	32.48
VOC Information:	<u> </u>	
Coating VOC (VOC less water and exempt solvents):	3.91	469
Material VOC (VOC with water and exempt solvents):	3.91	469
Wgt VOC/Vol Solids:	8.11	972
Wgt VOC/Wgt of Solids*:	0.48	0.48
HAP Information:	•	
Wgt VHAP/Wgt of Solids*:	0.23	0.23
Wgt VHAP/Vol of Solids:	3.88	465
Wgt VHAP/Vol of Product:	1.87	224
% VHAP:	15.56	15.56
Wgt Total HAP/Wgt of Solids*:	0.23	0.23
Wgt Total HAP/Vol of Solids:	3.93	471
Wgt Total HAP/Vol of Product:	1.90	227
% Total HAP:	15.76	15.76
Photochemically Reactive (Rule-66 / CA-102):		YES
Mix Ratio:		***Not Available ***

^{*} Values represented Lb/Lb or g/g.

Reported HAP information includes any HAP ingredients present below de minimis concentrations.





Volatile Composition						
Chemical Name	CAS Number	Weight %	Lb/Gal	g/L	Lb/Gal	g/L
					Solids	Solids
Solvent naphtha, petroleum, heavy	64742-94-5	8.97	1.08	129	2.24	268
aromatic						
Xylenes	1330-20-7	7.75	0.93	112	1.93	232
Diethylene glycol monobutyl ether	112-34-5	3.14	0.38	45	0.78	94
2-Butoxyethanol	111-76-2	3.14	0.38	45	0.78	94
Propylene glycol monomethyl ether	108-65-6	2.39	0.29	34	0.60	71
acetate						
Ethylene glycol monobutyl ether	112-07-2	1.86	0.22	27	0.46	56
acetate						
Ethylbenzene	100-41-4	1.62	0.20	23	0.40	48
Diacetone alcohol	123-42-2	1.05	0.13	15	0.26	31
Naphthalene	91-20-3	1.01	0.12	15	0.25	30
Formaldehyde	50-00-0	0.0056	0.0007	<0.01	0.0014	0
Regulatory Information						
Chemical Name	CAS Number	Weight %	HAI)	SAR	A 313
Xylenes	1330-20-7	7.75	YES	3	YI	ES .
Diethylene glycol monobutyl ether	112-34-5	3.14	YES	3	YI	ES .
2-Butoxyethanol	111-76-2	3.14	NO		YI	S
Ethylene glycol monobutyl ether	112-07-2	1.86	YES	3	YI	S
acetate						
Ethylbenzene	100-41-4	1.62	YES	3	YI	ES .
Naphthalene	91-20-3	1.01	YES	3	YI	ES
Formaldehyde	50-00-0	0.0056	YES	3	YI	ES .