

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

B160673074

FACILITY: General Motors LLC Flint Assembly		SRN / ID: B1606
LOCATION: G-3100 Van Slyke Rd., FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Kim Gerlock , Environmental Engineer		ACTIVITY DATE: 06/06/2024
STAFF: Autumn Cole	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled on-site inspection		
RESOLVED COMPLAINTS:		

B1606 General Motors Flint – Metal Center & Engine

On June 6, 2024 the State of Michigan’s Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an on-site inspection of General Motors Flint – Assembly plant. The last inspection of the facility was on April 12, 2022. The facility location is at G-2238 Bristol Rd, Flint.

The Environmental Contact:

Kim Gerlock, Environmental Engineer

Email: Kimberly.gerlock@gm.com Phone: (517)257-0717

AQD Staff

Autumn Cole, Environmental Engineer

Facility Description:

General Motors Flint is a large truck manufacturing facility. They have three major parts of their process. Metal center – where they stamp out large sheets of metal for parts for their vehicles, Engine operations plant where they construct and test the engines and the Assembly plant where they paint and assemble all parts of the vehicle before they are sold. This inspection date focused only on the Metal Center and the Engine Operations.

Regulatory Overview

This facility is a major source for HAPS, NOx, Sox, CO and VOC. They are therefore subject to MI-ROP-B1606-2020, their permit under the Title V Renewable Operating Permit (ROP) program.

They are also subject to 40 CFR Part 60 Subpart Kb, Subpart MM, and 40 CFR Part 63 Subpart A, Subpart DDDDD, Subpart III, and Subpart ZZZZ.

This facility is required to report to MIEnviro semi-annually and annually.

Fee Status:

Major Source

Inspection:

I arrived at the Metal Center at 8:30 where I met with Kim Gerlock, Briance Webster, and Jeff Hummel. We started by going through what the facility does and any safety concerns during the inspection. We then discussed any changes since the last inspection, which there was none. From there, we completed a walk-through of the Metal Center inspecting each emission unit.

After completing Metal Center inspection, we went to the Engine Operation where we met with Eric Mwacalimba, who walked us through the Engine Operation facility. During the walk-through, a large area was under construction which was previously where all SGE equipment was in place. This construction is for the replacement of SGE equipment for a new engine type.

Emission Units for each section are listed below.

Emission Units: Metal Center

Emission Unit / Flexible Group	Description	Compliance Status
EU- PAINTSHOP	Maintenance paint shop booth with dry fabric filters	In Compliance
EUINKMARKING	Ink marking operation. Releases to in plant environment	In Compliance
EU- COLDCLEANERS	Cold cleaners exempt from Rule 201 per Rule 281(2)(h) or Rule 285(2)(r)(iv)	In Compliance
EU-B-1 BOILER	A 2.2 MMBtu/hr natural gas-fired boiler that serves the Administrative Building. Model: WCR2-G-15HTD Serial: 050308582	In Compliance
EU-B-2 BOILER	A 2.2 MMBtu/hr natural gas-fired boiler that serves the Administrative Building. Model: WCR2-G-15HTD Serial: 050308584	In Compliance
EU-GENERATOR#1	A 115 HP natural gas-fired emergency spark ignition (SI) generator located on the roof of the Administration Building.	In Compliance
EU-GENERATOR#2	A 225 HP natural gas-fired emergency spark ignition (SI) generator located at the F-12 platform.	In Compliance

EU-GENERATOR#3	A 225 HP natural gas-fired emergency spark ignition (SI) generator located in the basement at L-19.	In Compliance
EU-FIREPUMP	A 420 HP Diesel fuel-fired fire pump compression ignition (CI) engine located East of the main plant. Catapillar Model 3406, Serial: 6TB18881	In Compliance

FG-RULE287(2)(c)-2

This flexible group covers EU-PAINTSHOP and EU-INKMARKING. These units have a monthly usage limit of 200 gallons applied minus water per month. Emission records were reviewed and were found to be less than their monthly limit. Gallons for June 2023 to October 2023 are shown below.

	June 2023	July 2023	Aug. 2023	Sept. 2023	Oct. 2023
EU-PAINTSHOP	0.157 gal	0 gal	0 gal	0.402 gal	1.026 gal
EU-INKMARKING	0.36 gal	1.92 gal	0.63 gal	0.21 gal	0.57 gal

FG-BOILER-MACT

This Flexible Group covers 2 Boilers subject to MACT DDDDD, EU-B-1 BOILER and EU-B-2 Boiler. They are natural gas fired units rated at 2.2 MMBTU/hr. They received their tune-up on April 29 2020, and the burner inspections were done on September 25, 2020. This was part of the MACT DDDDD tune-up compliance report submittal dated January 7, 2021, in hard copy and also to CEDRI. Units of this size are only required to conduct tune-ups every 5 years.

FG-EXT-EMERGENCY

This Flexible Group covers EU-GENERATOR#1 and EU-FIREPUMP which are spark ignition and compression ignition internal combustion engines less than 500 HP covered under MACT ZZZZ. Hours of operation for each engine was reviewed for 2023, and showed to be 8.4 hrs for EU-GENERATOR#1 and 29.5 hrs for EU-FIREPUMP. The values are less than their annual limit of 35 hour, which makes FG-EXT-EMERGENCY in compliance.

FG-NEW-EMERGENCY

This Flexible Group covers EU-GENERATOR#2 and EU-GENERATOR#3 which are new spark ignition internal combustion engines less than 500 HP covered under MACT ZZZZ. Hours of operation for each engine was reviewed for 2023, and showed to be 8.6 hrs for EU-GENERATOR#2 and 24.6 hrs for EU-GENERATOR#3. The values are less than their annual limit of 40 hour, which makes FG-NEW-EMERGENCY in compliance.

Emission Units: Engine Operation

Emission Unit / Flexible Group	Description	Compliance Status
EU-COLDCLNRS	Plant wide cold cleaners	In Compliance
EU-MARKING-PENS	Miscellaneous marking pen usage	In Compliance
EU-SGE-CLEANING	SGE miscellaneous cleaning operations. Currently non-operational and being removed for new engine line (Gen 6)	In Compliance
EU-SGE-SEALERS	SGE other sealer application. Currently non-operational and being removed for new engine line (Gen 6)	In Compliance
EU-SGE-RTV	SGE Room Temperature Vulcanizing (RTV) process. Currently non-operational and being removed for new engine line (Gen 6)	In Compliance
EU-CSS-CLEANING	CSS miscellaneous cleaning operations	In Compliance
EU-CSS-SEALERS	CSS other sealer application process	In Compliance
EU-CSS-RTV	CSS Room Temperature Vulcanizing (RTV) application process	In Compliance

EU-DIESELGEN#1	A 380 HP-diesel emergency generator located north of F Dock, intended to support the Computer Room in the event of a power outage	In Compliance
EU-DIESELGEN#2	A 80 HP-diesel emergency generator located north of F Dock, intended to support the emergency lights in the event of a power outage	In Compliance
EU-FIREPUMPENG#1	A 265 HP-diesel fire pump engine located in the Fire Pump House.	In Compliance
EU-FIREPUMPENG#2	A 265 HP-diesel fire pump engine located in the Fire Pump House	In Compliance
EU-SGE-EMERGEN	A 100 KW natural gas fired emergency generator supporting SGE operations. Currently non-operational, replacing gas line.	In Compliance

FG-RULE290-3

This flexible group consist of EU-SGE-CLEANING, EU-CSS-CLEANING and EU-CSS-RTV. Records of usage and emissions were obtained for 2023. Emissions must be below 1,000 lb per month. After review of each unit, each one is well below the monthly limit. This flexible group is found to be in compliance.

FG-RULE287(2)(c)-3

This flexible group consist of 3 separate Rule 287 sources, EU-MARKING-PENS, EU-SGE-SEALERS and EU-CSS-SEALERS. Each source is allowed up to 200 gallons per month minus water and exempt solvents. Records were obtained for each emission unit for June – October 2023. All SGE production ended April of 2023, so records were viewed from January 2023 – April 2023. After review of material usage, all three units are found to be in compliance with all applicable regulations.

FG-EMERGENCYENGINES-3

This flexible group consist of 4 compression ignitions emergency generators (EU-DIESELGEN#1 & EU-DIESELGEN#2), and fire pumps (EU-FIREPUMPENG#1 & EU-FIREPUMPENG #2). Each unit in this group shall not be run more than 50 hours per year, and no more than 100 hours between maintenance and testing. Records were reviewed for 2023 and part of 2024. For 2023, all engines met the requirements of maximum operational hours with the maximum annual hours for an engine being 38.4 hours (EU-FIREPUMPENG#2).

FG-EMERGENERATOR-3

This flexible group consist of one emission unit, EU-SGE-EMERGEN. This emission unit shall not be run more than 50 hours per year, and no more than 100 hours between maintenance and testing. GM reported a deviation on 3/15/2024 regarding missed required maintenance for the generator in 2023. The required maintenance was not completed in the year from the last maintenance but was completed 9/11/2023 instead. Because the generator was well below the hour operational limit (17.1 hrs) and this does not seem to be a reoccurring issue, no action will be taken at this time.

Compliance Statement:

After inspection of the facility, and review of their records and documentation, it can be determined that GM Flint Metal Center and Engine operations is in compliance with all their ROP obligations in MI-ROP-B1606-2020.

NAME Autumn Cole

DATE 8/13/2024

SUPERVISOR RB

**General Motors Flint Metal Center
EU-INK-MARKING
June 2023**

ROP MI-ROP-B1606-2020

EU INK-MARKING

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Carco, Inc.	217197	WS910-09 White	0	0.75%	0	8.34	0.33	0.00
Carco, Inc.	217197	WS910-09 Blue	0	0.75%	0	8.34	0.17	0.00
Kelley Laboratories	127687	Beechem Layout Fluid - Blue	0		0	7.13	6.53	0.00
ITW Dykem	350335	Rinz Off Red 44	0.36		0.36	8.34	6.69	2.41
ITW Dykem	151838	Steel Red Layout Fluid	0		0	8.34	6.65	0.00

Total Usage (gal) =	0.36	0.36	Total VOC (lbs) =	2.41
Permit Limit (gallons/month)	200			
Compliant (Y= yes, N = No)	Y			

weighted avg density = 8.34

Note:

Marking ink density and VOC content obtained from the MSDS in HMCS.
 1 case of Beechem Layout Fluid = 0.75 gal (12 - 8 oz bottles)
 Water % by Volume information obtained from each manufacturer (email).

Calculation Methodology

VOC (lbs) = Usage (gal) * VOC content (lbs/gal)

**General Motors Flint Metal Center
EU-INK-MARKING
July 2023**

ROP MI-ROP-B1606-2020

EU INK-MARKING

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Carco, Inc.	217197	WS910-09 White	0	0.75%	0	8.34	0.33	0.00
Carco, Inc.	217197	WS910-09 Blue	0	0.75%	0	8.34	0.17	0.00
Kelley Laboratories	127687	Beechem Layout Fluid - Blue	0		0	7.13	6.53	0.00
ITW Dykem	350335	Rinz Off Red 44	0		0	8.34	6.69	0.00
	151838	Steel Red Layout Fluid	1.50		1.50	8.34	6.65	9.98
Keyence	30115449	MK-10 Keyence Black Ink	0.00		0.00	7.50	6.75	0.00
Keyence	30115450	MK-20 Cleaning Solvent	0.42		0.42	7.10	7.10	3.00
Total Usage (gal) =			1.92		1.92	Total VOC (lbs) =		12.98

Permit Limit (gallons/month)

Compliant (Y= yes, N = No)

200
Y

Total VOC (lbs) = 12.98

weighted avg density = 8.07

Note:

Marking ink density and VOC content obtained from the MSDS in HMCS.

1 case of Beechem Layout Fluid = 0.75 gal (12 - 8 oz bottles)

Water % by Volume information obtained from each manufacturer (email).

MK-10 and MK-20 log is 800ml cartridges = 0.21133764 gallons each

Calculation Methodology

VOC (lbs) = Usage (gal) * VOC content (lbs/gal)

**General Motors Flint Metal Center
EU-INK-MARKING
August 2023**

ROP MI-ROP-B1606-2020

EU INK-MARKING

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Carco, Inc.	217197	WS910-09 White	0	0.75%	0	8.34	0.33	0.00
Carco, Inc.	217197	WS910-09 Blue	0	0.75%	0	8.34	0.17	0.00
Kelley Laboratories	127687	Beechem Layout Fluid - Blue	0		0	7.13	6.53	0.00
ITW Dykem	350335	Rinz Off Red 44	0		0	8.34	6.69	0.00
	151838	Steel Red Layout Fluid	0		0.00	8.34	6.65	0.00
Keyence	30115449	MK-10 Keyence Black Ink	0.21		0.21	7.50	6.75	1.43
Keyence	30115450	MK-20 Cleaning Solvent	0.42		0.42	7.10	7.10	3.00
Total Usage (gal) =			0.63		0.63	Total VOC (lbs) =		
					200	weighted avg density =		
					Y	7.23		

Note:

Marking ink density and VOC content obtained from the MSDS in HMCS.

1 case of Beechem Layout Fluid = 0.75 gal (12 - 8 oz bottles)

Water % by Volume information obtained from each manufacturer (email).

MK-10 and MK-20 log is 800ml cartridges = 0.21133764 gallons each

Calculation Methodology

VOC (lbs) = Usage (gal) * VOC content (lbs/gal)

**General Motors Flint Metal Center
EU-INK-MARKING
September 2023**

ROP MI-ROP-B1606-2020

EU INK-MARKING

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Carco, Inc.	217197	WS910-09 White	0	0.75%	0	8.34	0.33	0.00
Carco, Inc.	217197	WS910-09 Blue	0	0.75%	0	8.34	0.17	0.00
Kelley Laboratories	127687	Beechem Layout Fluid - Blue	0		0	7.13	6.53	0.00
ITW Dykem	350335	Rinz Off Red 44	0		0	8.34	6.69	0.00
	151838	Steel Red Layout Fluid	0		0.00	8.34	6.65	0.00
Keyence	30115449	MK-10 Keyence Black Ink	0.21		0.21	7.50	6.75	1.43
Keyence	30115450	MK-20 Cleaning Solvent	0.00		0.00	7.10	7.10	0.00
Total Usage (gal) =			0.21		0.21	Total VOC (lbs) =		
			Permit Limit (gallons/month)		200	weighted avg density =		
			Compliant (Y= yes, N = No)		Y	7.50		

Note:

Marking ink density and VOC content obtained from the MSDS in HMCS.

1 case of Beechem Layout Fluid = 0.75 gal (12 - 8 oz bottles)

Water % by Volume information obtained from each manufacturer (email).

MK-10 and MK-20 log is 800ml cartridges = 0.21133764 gallons each

Calculation Methodology

VOC (lbs) = Usage (gal) * VOC content (lbs/gal)

**General Motors Flint Metal Center
EU-INK-MARKING
October 2023**

ROP MI-ROP-B1606-2020

EU INK-MARKING

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Carco, Inc.	217197	WS910-09 White	0	0.75%	0	8.34	0.33	0.00
Carco, Inc.	217197	WS910-09 Blue	0	0.75%	0	8.34	0.17	0.00
Kelley Laboratories	127687	Beechem Layout Fluid - Blue	0		0	7.13	6.53	0.00
ITW Dykem	350335	Rinz Off Red 44	0.36		0.36	8.34	6.69	2.41
	151838	Steel Red Layout Fluid	0		0.00	8.34	6.65	0.00
Keyence	30115449	MK-10 Keyence Black Ink	0.00		0.00	7.50	6.75	0.00
Keyence	30115450	MK-20 Cleaning Solvent	0.21		0.21	7.10	7.10	1.50

Total Usage (gal) = 0.57

Permit Limit (gallons/month) = 200

Compliant (Y= yes, N = No) = Y

Total VOC (lbs) = 3.91

weighted avg density = 7.88

Note:

Marking ink density and VOC content obtained from the MSDS in HMCS.

1 case of Beechem Layout Fluid = 0.75 gal (12 - 8 oz bottles)

Water % by Volume information obtained from each manufacturer (email).

MK-10 and MK-20 log is 800ml cartridges = 0.21133764 gallons each

Calculation Methodology

VOC (lbs) = Usage (gal) * VOC content (lbs/gal)

**General Motors Flint Metal Center
EU-PAINTSHOP
June 2023**

EU PAINTSHOP
Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Sherwin Williams	333807	Metalatex Semi Gloss Safety Orange (B42E39)		57.7	0.00	8.94	0.83	0.00
Sherwin Williams	345202	Metalatex Semi Gloss Safety Red (B42R38)		62.9	0.00	8.68	0.83	0.00
Sherwin Williams	333651	DTM Acrylic Gloss Light Green (B66T154)		62.5	0.00	9.18	2.08	0.00
Sherwin Williams	237970	DTM Acrylic Gloss Black (B66B11)		57.8	0.00	8.60	2.08	0.00
Sherwin Williams	235701	DTM Acrylic Gloss Coating Safety Orange (B66E39)		56.8	0.00	8.85	0.79	0.00
Sherwin Williams	235700	DTM Acrylic Gloss Coating Safety Red (B66R38)		57	0.00	8.63	0.66	0.00
Sherwin Williams	334554	DTM Acrylic Gloss Pure White (B66W101)		53.7	0.00	9.88	0.79	0.00
Sherwin Williams	235681	DTM Acrylic Gloss Safety Yellow (B66Y11037)	0.125	60.10	0.05	9.08	1.83	0.23
Sherwin Williams	357988	DTM Acrylic Gloss Tan (B66W111)		54.1	0.00	9.74	1.50	0.00
Sherwin Williams	354274	DTM Acrylic Gloss Blue (B66T104)	0.25	57.2	0.11	8.77	0.86	0.22
Sherwin Williams	333649	DTM Acrylic Gloss Gray (B66T104)		57.2	0.00	9.92	2.08	0.00
Sherwin Williams	350594	Sher-Cryl Black (B66T304)		52.3	0.00	8.82	1.40	0.00
Sherwin Williams	1181073	Sher-Cryl Extra White (B66W311)		52.7	0.00	9.60	1.66	0.00
Sherwin Williams	350600	Sher-Cryl Blue (B66T304)		52.3	0.00	8.96	1.37	0.00
Sherwin Williams	349455	Sher-Cryl Yellow (B66T304/B66Y300)		52.3	0.00	9.26	0.70	0.00
Sherwin Williams	350596	Sher-Cryl Red (B66T304)		52.3	0.00	8.95	1.33	0.00
Sherwin Williams	30040302	Sher-Cryl Corporate Gray		52.7	0.00	9.36	0.64	0.00
Sherwin Williams	350599	Sher-Cryl Green (GB66T304)		52.3	0.00	9.06	1.36	0.00
Sherwin Williams	357633	DTM Lambswool Grey		53.8	0.00	9.75	0.68	0.00
PPG	40019932	Break-Through Safety Orange (GPSW-V70-46)		42.0	0.00	9.26	5.37	0.00
Sherwin Williams	354511	Sher-Cryl White Primer (B66W300)		52.7	0.00	10.35	1.66	0.00
Sherwin Williams	330463	Setfast Acrylic Safety Yellow (TM2173)		50.1	0.00	9.69	0.58	0.00
Sherwin Williams	333496	DTM Acrylic Gloss Light Blue (B66T104)		57.2	0.00	9.00	0.91	0.00
Sherwin Williams	346823	Sher-Cryl Clear		49	0.00	1.05	0.71	0.00
Sherwin Williams	357065	Sher-Cryl Burgundy (B66RW353)		50.3	0.00	9.10	0.81	0.00
Total Paint Usage			0.375		0.157	8.87	1.18	0.44
Permit Limit (gallons, as applied, minus water/month)					200		Average	Total VOC
Compliant (Y= yes, N = No)					Y			(lbs)

Source:

Paint Information obtained from Sherwin Williams website paint documents or Sitehawk.

Calculation Methodology

VOC (lbs) = Usage (gal, with water) * VOC content (lbs/gal, with water)

<https://www.paintdocs.com/docs/app/web/page/docCategory/10>

Density from SDS in Sitehawk and most VOC lbs/gal from data sheets on Sherwin Williams site.

**General Motors Flint Metal Center
EU-PAINTSHOP
July 2023**

EU PAINTSHOP
Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Sherwin Williams	333807	Metalatex Semi Gloss Safety Orange (B42E39)		57.7	0.00	8.94	0.83	0.00
Sherwin Williams	345202	Metalatex Semi Gloss Safety Red (B42R38)		62.9	0.00	8.68	0.83	0.00
Sherwin Williams	333651	DTM Acrylic Gloss Light Green (B66T154)		62.5	0.00	9.18	2.08	0.00
Sherwin Williams	237970	DTM Acrylic Gloss Black (B66B11)		57.8	0.00	8.60	2.08	0.00
Sherwin Williams	235701	DTM Acrylic Gloss Coating Safety Orange (B66E39)		56.8	0.00	8.85	0.79	0.00
Sherwin Williams	235700	DTM Acrylic Gloss Coating Safety Red (B66R38)		57	0.00	8.63	0.66	0.00
Sherwin Williams	334554	DTM Acrylic Gloss Pure White (B66W101)		53.7	0.00	9.88	0.79	0.00
Sherwin Williams	235681	DTM Acrylic Gloss Safety Yellow (B66Y11037)		60.10	0.00	9.08	1.83	0.00
Sherwin Williams	357988	DTM Acrylic Gloss Tan (B66W111)		54.1	0.00	9.74	1.50	0.00
Sherwin Williams	354274	DTM Acrylic Gloss Blue (B66T104)		57.2	0.00	8.77	0.86	0.00
Sherwin Williams	333649	DTM Acrylic Gloss Gray (B66T104)		57.2	0.00	9.92	2.08	0.00
Sherwin Williams	350594	Sher-Cryl Black (B66T304)		52.3	0.00	8.82	1.40	0.00
Sherwin Williams	1181073	Sher-Cryl Extra White (B66W311)		52.7	0.00	9.60	1.66	0.00
Sherwin Williams	350600	Sher-Cryl Blue (B66T304)		52.3	0.00	8.96	1.37	0.00
Sherwin Williams	349455	Sher-Cryl Yellow (B66T304/B66Y300)		52.3	0.00	9.26	0.70	0.00
Sherwin Williams	350596	Sher-Cryl Red (B66T304)		52.3	0.00	8.95	1.33	0.00
Sherwin Williams	30040302	Sher-Cryl Corporate Gray		52.7	0.00	9.36	0.64	0.00
Sherwin Williams	350599	Sher-Cryl Green (GB66T304)		52.3	0.00	9.06	1.36	0.00
Sherwin Williams	357633	DTM Lambswool Grey		53.8	0.00	9.75	0.68	0.00
PPG	40019932	Break-Through Safety Orange (GPSW-V70-46)		42.0	0.00	9.26	5.37	0.00
Sherwin Williams	354511	Sher-Cryl White Primer (B66W300)		52.7	0.00	10.35	1.66	0.00
Sherwin Williams	330463	Setfast Acrylic Safety Yellow (TM2173)		50.1	0.00	9.69	0.58	0.00
Sherwin Williams	333496	DTM Acrylic Gloss Light Blue (B66T104)		57.2	0.00	9.00	0.91	0.00
Sherwin Williams	346823	Sher-Cryl Clear		49	0.00	1.05	0.71	0.00
Sherwin Williams	357065	Sher-Cryl Burgundy (B66RW353)		50.3	0.00	9.10	0.81	0.00
Total Paint Usage			0.000		0.000	#DIV/0!	#DIV/0!	0.00
Permit Limit (gallons, as applied, minus water/month)					200		Average	Total VOC
Compliant (Y= yes, N = No)					Y			(lbs)

Source:

Paint Information obtained from Sherwin Williams website paint documents or Sitehawk.

Calculation Methodology

VOC (lbs) = Usage (gal, with water) * VOC content (lbs/gal, with water)

<https://www.paintdocs.com/docs/app/web/page/docCategory/10>

Density from SDS in Sitehawk and most VOC lbs/gal from data sheets on Sherwin Williams site.

**General Motors Flint Metal Center
EU-PAINTSHOP
August 2023**

EU PAINTSHOP

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Sherwin Williams	333807	Metalatex Semi Gloss Safety Orange (B42E39)		57.7	0.00	8.94	0.83	0.00
Sherwin Williams	345202	Metalatex Semi Gloss Safety Red (B42R38)		62.9	0.00	8.68	0.83	0.00
Sherwin Williams	333651	DTM Acrylic Gloss Light Green (B66T154)		62.5	0.00	9.18	2.08	0.00
Sherwin Williams	237970	DTM Acrylic Gloss Black (B66B11)		57.8	0.00	8.60	2.08	0.00
Sherwin Williams	235701	DTM Acrylic Gloss Coating Safety Orange (B66E39)		56.8	0.00	8.85	0.79	0.00
Sherwin Williams	235700	DTM Acrylic Gloss Coating Safety Red (B66R38)		57	0.00	8.63	0.66	0.00
Sherwin Williams	334554	DTM Acrylic Gloss Pure White (B66W101)		53.7	0.00	9.88	0.79	0.00
Sherwin Williams	235681	DTM Acrylic Gloss Safety Yellow (B66Y11037)		60.10	0.00	9.08	1.83	0.00
Sherwin Williams	357988	DTM Acrylic Gloss Tan (B66W111)		54.1	0.00	9.74	1.50	0.00
Sherwin Williams	354274	DTM Acrylic Gloss Blue (B66T104)		57.2	0.00	8.77	0.86	0.00
Sherwin Williams	333649	DTM Acrylic Gloss Gray (B66T104)		57.2	0.00	9.92	2.08	0.00
Sherwin Williams	350594	Sher-Cryl Black (B66T304)		52.3	0.00	8.82	1.40	0.00
Sherwin Williams	1181073	Sher-Cryl Extra White (B66W311)		52.7	0.00	9.60	1.66	0.00
Sherwin Williams	350600	Sher-Cryl Blue (B66T304)		52.3	0.00	8.96	1.37	0.00
Sherwin Williams	349455	Sher-Cryl Yellow (B66T304/B66Y300)		52.3	0.00	9.26	0.70	0.00
Sherwin Williams	350596	Sher-Cryl Red (B66T304)		52.3	0.00	8.95	1.33	0.00
Sherwin Williams	30040302	Sher-Cryl Corporate Gray		52.7	0.00	9.36	0.64	0.00
Sherwin Williams	350599	Sher-Cryl Green (GB66T304)		52.3	0.00	9.06	1.36	0.00
Sherwin Williams	357633	DTM Lambswool Grey		53.8	0.00	9.75	0.68	0.00
PPG	40019932	Break-Through Safety Orange (GPSW-V70-46)		42.0	0.00	9.26	5.37	0.00
Sherwin Williams	354511	Sher-Cryl White Primer (B66W300)		52.7	0.00	10.35	1.66	0.00
Sherwin Williams	330463	Setfast Acrylic Safety Yellow (TM2173)		50.1	0.00	9.69	0.58	0.00
Sherwin Williams	333496	DTM Acrylic Gloss Light Blue (B66T104)		57.2	0.00	9.00	0.91	0.00
Sherwin Williams	346823	Sher-Cryl Clear		49	0.00	1.05	0.71	0.00
Sherwin Williams	357065	Sher-Cryl Burgundy (B66RW353)		50.3	0.00	9.10	0.81	0.00
Total Paint Usage			0.000		0.000	#DIV/0!	#DIV/0!	0.00
Permit Limit (gallons, as applied, minus water/month)					200		Average	Total VOC
Compliant (Y= yes, N = No)					Y			(lbs)

Source:

Paint Information obtained from Sherwin Williams website paint documents or Sitehawk.

Calculation Methodology

VOC (lbs) = Usage (gal, with water) * VOC content (lbs/gal, with water)

<https://www.paintdocs.com/docs/app/web/page/docCategory/10>

Density from SDS in Sitehawk and most VOC lbs/gal from data sheets on Sherwin Williams site.

**General Motors Flint Metal Center
EU-PAINTSHOP
September 2023**

EU PAINTSHOP

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Sherwin Williams	333807	Metalatex Semi Gloss Safety Orange (B42E39)		57.7	0.00	8.94	0.83	0.00
Sherwin Williams	345202	Metalatex Semi Gloss Safety Red (B42R38)		62.9	0.00	8.68	0.83	0.00
Sherwin Williams	333651	DTM Acrylic Gloss Light Green (B66T154)		62.5	0.00	9.18	2.08	0.00
Sherwin Williams	237970	DTM Acrylic Gloss Black (B66B11)	0.25	57.8	0.11	8.60	2.08	0.52
Sherwin Williams	235701	DTM Acrylic Gloss Coating Safety Orange (B66E39)		56.8	0.00	8.85	0.79	0.00
Sherwin Williams	235700	DTM Acrylic Gloss Coating Safety Red (B66R38)		57	0.00	8.63	0.66	0.00
Sherwin Williams	334554	DTM Acrylic Gloss Pure White (B66W101)	0.125	53.7	0.06	9.88	0.79	0.10
Sherwin Williams	235681	DTM Acrylic Gloss Safety Yellow (B66Y11037)		60.10	0.00	9.08	1.83	0.00
Sherwin Williams	357988	DTM Acrylic Gloss Tan (B66W111)		54.1	0.00	9.74	1.50	0.00
Sherwin Williams	354274	DTM Acrylic Gloss Blue (B66T104)		57.2	0.00	8.77	0.86	0.00
Sherwin Williams	333649	DTM Acrylic Gloss Gray (B66T104)		57.2	0.00	9.92	2.08	0.00
Sherwin Williams	350594	Sher-Cryl Black (B66T304)		52.3	0.00	8.82	1.40	0.00
Sherwin Williams	1181073	Sher-Cryl Extra White (B66W311)		52.7	0.00	9.60	1.66	0.00
Sherwin Williams	350600	Sher-Cryl Blue (B66T304)		52.3	0.00	8.96	1.37	0.00
Sherwin Williams	349455	Sher-Cryl Yellow (B66T304/B66Y300)	0.50	52.3	0.24	9.26	0.70	0.35
Sherwin Williams	350596	Sher-Cryl Red (B66T304)		52.3	0.00	8.95	1.33	0.00
Sherwin Williams	30040302	Sher-Cryl Corporate Gray		52.7	0.00	9.36	0.64	0.00
Sherwin Williams	350599	Sher-Cryl Green (GB66T304)		52.3	0.00	9.06	1.36	0.00
Sherwin Williams	357633	DTM Lambswool Grey		53.8	0.00	9.75	0.68	0.00
PPG	40019932	Break-Through Safety Orange (GPSW-V70-46)		42.0	0.00	9.26	5.37	0.00
Sherwin Williams	354511	Sher-Cryl White Primer (B66W300)		52.7	0.00	10.35	1.66	0.00
Sherwin Williams	330463	Setfast Acrylic Safety Yellow (TM2173)		50.1	0.00	9.69	0.58	0.00
Sherwin Williams	333496	DTM Acrylic Gloss Light Blue (B66T104)		57.2	0.00	9.00	0.91	0.00
Sherwin Williams	346823	Sher-Cryl Clear		49	0.00	1.05	0.71	0.00
Sherwin Williams	357065	Sher-Cryl Burgundy (B66RW353)		50.3	0.00	9.10	0.81	0.00
Total Paint Usage			0.875		0.402	9.16	1.11	0.97
Permit Limit (gallons, as applied, minus water/month)					200		Average	Total VOC
Compliant (Y= yes, N = No)					Y			(lbs)

Source:

Paint Information obtained from Sherwin Williams website paint documents or Sitehawk.

Calculation Methodology

VOC (lbs) = Usage (gal, with water) * VOC content (lbs/gal, with water)

<https://www.paintdocs.com/docs/app/web/page/docCategory/10>

Density from SDS in Sitehawk and most VOC lbs/gal from data sheets on Sherwin Williams site.

**General Motors Flint Metal Center
EU-PAINTSHOP
October 2023**

EU PAINTSHOP

Monthly Usage Log

Manufacturer	GM Product ID	Material Name	Usage	Water	Usage	Density	VOC	VOC
			(gal, with water)	% by volume	(gal, minus water)	(lb/gal, with water)	(lbs/gal, with water)	(lbs)
Sherwin Williams	333807	Metalatex Semi Gloss Safety Orange (B42E39)		57.7	0.00	8.94	0.83	0.00
Sherwin Williams	345202	Metalatex Semi Gloss Safety Red (B42R38)		62.9	0.00	8.68	0.83	0.00
Sherwin Williams	333651	DTM Acrylic Gloss Light Green (B66T154)		62.5	0.00	9.18	2.08	0.00
Sherwin Williams	237970	DTM Acrylic Gloss Black (B66B11)	1.38	57.8	0.58	8.60	2.08	2.86
Sherwin Williams	235701	DTM Acrylic Gloss Coating Safety Orange (B66E39)		56.8	0.00	8.85	0.79	0.00
Sherwin Williams	235700	DTM Acrylic Gloss Coating Safety Red (B66R38)		57	0.00	8.63	0.66	0.00
Sherwin Williams	334554	DTM Acrylic Gloss Pure White (B66W101)	0.5	53.7	0.23	9.88	0.79	0.40
Sherwin Williams	235681	DTM Acrylic Gloss Safety Yellow (B66Y11037)		60.10	0.00	9.08	1.83	0.00
Sherwin Williams	357988	DTM Acrylic Gloss Tan (B66W111)		54.1	0.00	9.74	1.50	0.00
Sherwin Williams	354274	DTM Acrylic Gloss Blue (B66T104)	0.50	57.2	0.21	8.77	0.86	0.43
Sherwin Williams	333649	DTM Acrylic Gloss Gray (B66T104)		57.2	0.00	9.92	2.08	0.00
Sherwin Williams	350594	Sher-Cryl Black (B66T304)		52.3	0.00	8.82	1.40	0.00
Sherwin Williams	1181073	Sher-Cryl Extra White (B66W311)		52.7	0.00	9.60	1.66	0.00
Sherwin Williams	350600	Sher-Cryl Blue (B66T304)		52.3	0.00	8.96	1.37	0.00
Sherwin Williams	349455	Sher-Cryl Yellow (B66T304/B66Y300)		52.3	0.00	9.26	0.70	0.00
Sherwin Williams	350596	Sher-Cryl Red (B66T304)		52.3	0.00	8.95	1.33	0.00
Sherwin Williams	30040302	Sher-Cryl Corporate Gray		52.7	0.00	9.36	0.64	0.00
Sherwin Williams	350599	Sher-Cryl Green (GB66T304)		52.3	0.00	9.06	1.36	0.00
Sherwin Williams	357633	DTM Lambswool Grey		53.8	0.00	9.75	0.68	0.00
PPG	40019932	Break-Through Safety Orange (GPSW-V70-46)		42.0	0.00	9.26	5.37	0.00
Sherwin Williams	354511	Sher-Cryl White Primer (B66W300)		52.7	0.00	10.35	1.66	0.00
Sherwin Williams	330463	Setfast Acrylic Safety Yellow (TM2173)		50.1	0.00	9.69	0.58	0.00
Sherwin Williams	333496	DTM Acrylic Gloss Light Blue (B66T104)		57.2	0.00	9.00	0.91	0.00
Sherwin Williams	346823	Sher-Cryl Clear		49	0.00	1.05	0.71	0.00
Sherwin Williams	357065	Sher-Cryl Burgundy (B66RW353)		50.3	0.00	9.10	0.81	0.00
Total Paint Usage			2.375		1.026	8.91	1.55	3.69
Permit Limit (gallons, as applied, minus water/month)					200		Average	Total VOC
Compliant (Y= yes, N = No)					Y			(lbs)

Source:

Paint Information obtained from Sherwin Williams website paint documents or Sitehawk.

Calculation Methodology

VOC (lbs) = Usage (gal, with water) * VOC content (lbs/gal, with water)

<https://www.paintdocs.com/docs/app/web/page/docCategory/10>

Density from SDS in Sitehawk and most VOC lbs/gal from data sheets on Sherwin Williams site.