

Title V Air Permit Recordkeeping for Large Parts

Viking Pools, LLC - FLORIDA Facility ID 1010498

No small parts manufactured during this 12 month period.

Emissions Unit # 1010498-001 Fiberglass Pool Manufacturing

March 2009

Monthly Material Usage (in tons)

Application Method	OZONE SEASON												12 month Totals
	JAN '09	FEB '09	MAR '09	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08	
Polyester Resin	3.32	3.92	7.09	13.92	30.29	13.47	16.06	15.38	14.22	4.22	1.21	1.51	124.62
Vinyl Ester Resin	1.70	4.22	3.58	9.30	21.36	5.36	14.03	12.17	14.07	0.60	1.21	1.21	88.80
Ceramic (Hot Resin)	0.25	0.00	0.25	2.02	1.77	1.01	1.51	0.00	0.76	1.01	0.00	0.00	8.58
Clear Gelcoat	0.23	1.80	0.45	3.42	6.06	5.15	2.97	3.14	3.79	0.45	0.68	0.45	28.57
White Gelcoat	0.20	0.75	0.33	1.49	1.49	1.49	0.78	0.78	0.78	0.41	0.41	0.41	9.32
Color Gelcoat	1.02	0.26	1.55	4.35	4.35	4.35	2.97	2.97	2.97	0.84	0.84	0.84	27.30
Tooling Gelcoat	0.02	0.00	0.00	0.01	0.01	0.01	0.03	0.03	0.03	0.06	0.06	0.06	0.30
Mold Release Wax/Sealer	0.020	0.020	0.031	0.082	0.082	0.082	0.061	0.061	0.041	0.082	0.082	0.041	0.69
Adhesives / Grout	0.090	0.015	0.090	0.225	0.225	0.233	0.188	0.188	0.195	0.045	0.045	0.030	1.57
Catalyst	0.136	0.164	0.256	0.781	0.781	0.782	0.500	0.500	0.500	0.126	0.126	0.125	4.78
Mold Cleaner (Frekote)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	0.01
Production Cleaner (Acetone)	0.22	0.14	0.14	0.39	0.39	0.39	0.37	0.37	0.37	0.20	0.20	0.20	3.36

Hours of Operation

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170

168

190

196

201

197

192

184

177

195

153

145

Maximum permitted hours of Operation: 5824

Within Limit for hours of operation? YES

Monthly VOC Emissions (in tons)

Annual Limit (tons) = 223 If emissions are within 10% of limit, daily records are required.

Application Method	Annual Limit (tons) = 223												12 month Total VOC
	JAN '09	FEB '09	MAR '09	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08	
Polyester Resin	0.11	0.13	0.24	0.48	1.04	0.46	0.55	0.53	0.49	0.14	0.04	0.05	4.27
Vinyl Ester Resin	0.09	0.22	0.18	0.47	1.09	0.27	0.72	0.62	0.72	0.03	0.06	0.06	4.53
Ceramic (Hot Resin)	0.01	0.00	0.01	0.11	0.10	0.05	0.08	0.00	0.04	0.05	0.00	0.00	0.46
Clear Gelcoat	0.05	0.38	0.10	0.73	1.29	1.10	0.63	0.67	0.81	0.10	0.14	0.10	6.09
White Gelcoat	0.03	0.11	0.05	0.23	0.23	0.23	0.12	0.12	0.12	0.06	0.06	0.06	1.43
Color Gelcoat	0.17	0.04	0.27	0.74	0.74	0.74	0.51	0.51	0.51	0.14	0.14	0.14	4.67
Tooling Gelcoat	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.09
Mold Release Wax/Sealer	0.020	0.020	0.030	0.081	0.081	0.081	0.061	0.061	0.041	0.081	0.081	0.041	0.68
Adhesives / Grout	0.0027	0.0005	0.0027	0.0068	0.0068	0.0070	0.0056	0.0056	0.0059	0.0014	0.0014	0.0009	0.047
Catalyst	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.001
Mold Cleaner (Frekote)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0149	0.0000	0.0000	0.015
Production Cleaner (Acetone)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Total VOC Emissions per Month	0.50	0.91	0.88	2.85	4.58	2.95	2.68	2.52	2.73	0.65	0.55	0.47	22.28

Total Resin VOC 9.26
Total Gelcoat VOC 12.28

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No small parts manufactured during this 12 month period.
March 2009

Viking Pools, LLC - FLORIDA Facility ID 1010498
 Emissions Unit # 1010498-001 Fiberglass Pool Manufacturing

Individual HAP Emissions Annual Limit (tons) = 221

All Individual HAP's Less than 90% of Annual Limit? TRUE

Note: If emissions are within 10% of limit, daily records are required. Otherwise, monthly is sufficient.

Monthly Styrene (in tons)	Styrene % by Weight	Styrene Emission												12 month Total	
		JAN '08	FEB '08	MAR '08	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08		
Polyester Resin	32.0%	0.11	0.13	0.24	0.48	1.04	0.46	0.55	0.53	0.49	0.14	0.04	0.05	4.27	Resin Styrene 9.25
Vinyl Ester Resin	43.0%	0.09	0.22	0.18	0.47	1.09	0.27	0.72	0.62	0.72	0.03	0.06	0.06	4.53	
Ceramic (Hot Resin)	32.0%	0.01	0.00	0.01	0.11	0.10	0.05	0.08	0.00	0.04	0.05	0.00	0.00	0.46	
Clear Gelcoat	35.0%	0.04	0.30	0.08	0.57	1.02	0.87	0.50	0.53	0.64	0.08	0.11	0.08	4.80	Gelcoat Styrene 9.61
White Gelcoat	26.0%	0.02	0.09	0.04	0.17	0.17	0.17	0.09	0.09	0.09	0.05	0.05	0.05	1.08	
Color Gelcoat	30.0%	0.14	0.04	0.21	0.58	0.58	0.56	0.40	0.40	0.40	0.11	0.11	0.11	3.64	
Tooling Gelcoat	45.0%	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.08	
Total Styrene ALL Materials		0.42	0.77	0.76	2.39	4.00	2.41	2.34	2.17	2.38	0.48	0.39	0.36	18.87	

Monthly MMA (in tons)	MMA % by Weight	MMA Emission												12 month Total	
		JAN '08	FEB '08	MAR '08	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08		
Clear Gelcoat	6.0%	0.01	0.08	0.02	0.15	0.27	0.23	0.13	0.14	0.17	0.02	0.03	0.02	1.29	Gelcoat MMA 2.67
White Gelcoat	5.0%	0.01	0.03	0.01	0.06	0.06	0.06	0.03	0.03	0.03	0.02	0.02	0.02	0.35	
Color Gelcoat	5.0%	0.04	0.01	0.06	0.16	0.16	0.16	0.11	0.11	0.11	0.03	0.03	0.03	1.02	
Tooling Gelcoat	5.0%	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.002	0.002	0.01	
Total MMA ALL Materials		0.01	0.08	0.02	0.15	0.27	0.23	0.13	0.14	0.17	0.02	0.03	0.02	2.67	

Monthly Dimethyl phthalate (in tons)	% by Weight	Dimethyl phthalate Emission												12 month Total
		JAN '08	FEB '08	MAR '08	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08	
Catalyst	66.0%	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0013
Total Dimethyl Phthalate ALL Materials		0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0013

Monthly Toluene (in tons)	% by Weight	Toluene Emission												12 month Total
		JAN '08	FEB '08	MAR '08	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08	
Adhesives / Grout	0.5%	0.0005	0.0001	0.0005	0.0011	0.0011	0.0012	0.0009	0.0009	0.0010	0.0002	0.0002	0.0002	0.0078
Mold Cleaner (Frekote)	50.0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0074	0.0000	0.0000	0.0074
Total Toluene ALL Materials		0.0005	0.0001	0.0005	0.0011	0.0011	0.0012	0.0009	0.0009	0.0010	0.0002	0.0002	0.0002	0.0153

Monthly MEK (in tons)	% by Weight	MEK Emission												12 month Total
		JAN '08	FEB '08	MAR '08	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08	
Catalyst	1.0%	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Mold Cleaner (Frekote)	50.0%	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0074	0.00000	0.00000	0.0074
Total MEK ALL Materials		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0074

Emissions Factors & Calculations

Material	Application Method	% Styrene	Styrene Emission	lbs. styrene emitted per ton of material	% MMA	lbs. MMA emitted per ton of material
Polyester Resin	Mech. Non-Atomized	32.0%	.107 x .32 x 2000 = lbs emissions per ton of material	68		
Vinyl Ester Resin	Mech. Non-Atomized	43.0%	.43% Styrene - EF taken directly from Unified Emis. table	102		
Ceramic (Hot Resin)	Mech. Atomized	32.0%	.169 x .32 x 2000 = lbs emissions per ton of material	108		
Clear Gelcoat	Mech. Atomized	35.0%	.35% Styrene - EF taken directly from Unified Emis. table	336		
White Gelcoat	Mech. Atomized	26.0%	.445 x .262 x 2000 = lbs emissions per ton of material	231		
Other Color Gelcoat	Mech. Atomized	30.0%	.445 x .3 x 2000 = lbs emissions per ton of material	267		

MMA Emissions factors for Gelcoats taken directly from Unified Emissions Table for Open Molding of Composites

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Emissions Unit # 1010498-001 Fiberglass Pool Manufacturing

March 2009

Note: If emissions are within 10% of limit, daily records are required. Otherwise, monthly records are sufficient.

Monthly Combined HAP Emissions

Total HAP Emissions Annual Limit (tons) = **223**

Less than 90% of Limit? **YES**

	Total HAP % by Weight	Total HAP Emissions Annual Limit (tons) = 223												12 month Total per Material	
		JAN '09	FEB '09	MAR '09	APR '08	MAY '08	JUN '08	JUL '08	AUG '08	SEP '08	OCT '08	NOV '08	DEC '08		
Polyester Resin	32.0%	0.11	0.13	0.24	0.48	1.04	0.46	0.55	0.53	0.49	0.14	0.04	0.05	4.27	Resin HAP 10.73
Vinyl Ester Resin	43.0%	0.11	0.29	0.24	0.63	1.44	0.36	0.95	0.82	0.95	0.04	0.08	0.08	6.00	
Ceramic (Hot Resin)	32.0%	0.01	0.00	0.01	0.11	0.10	0.05	0.08	0.00	0.04	0.05	0.00	0.00	0.46	
Clear Gelcoat	41.0%	0.05	0.41	0.10	0.79	1.39	1.18	0.68	0.72	0.87	0.10	0.16	0.10	6.57	Gelcoat HAP 12.53
White Gelcoat	31.0%	0.03	0.10	0.05	0.21	0.21	0.21	0.11	0.11	0.11	0.06	0.06	0.06	1.29	
Color Gelcoat	35.0%	0.17	0.04	0.26	0.73	0.73	0.73	0.50	0.50	0.50	0.14	0.14	0.14	4.58	
Tooling Gelcoat	50.0%	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.10	
Adhesives / Grout	0.5%	0.0005	0.0001	0.0005	0.0011	0.0011	0.0012	0.0009	0.0009	0.0010	0.0002	0.0002	0.0002	0.008	
Catalyst	67.0%	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.001	
Mold Cleaner (Frekote)	100.0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0149	0.0000	0.0000	0.0149	
Total HAP per Month		0.50	0.98	0.91	2.94	4.91	3.00	2.88	2.69	2.96	0.57	0.49	0.45		
		Total 12-month HAP Emissions												23.28	

WWW NESHAP Compliance Most Recent 12 Months			Total 12 Month Usage (tons)	Total 12 Month Organic HAP (lbs)	NESHAP Table 3 Emissions Limit (lb/ton)	Emissions Factors for total HAP emissions (from table 1 to Subpart WWW of Part 65)
Material	Total % HAP	Total HAP EF (lbs/ton)				
Polyester Resin	32.0%	68	124.62	8,534	113	
Vinyl Ester Resin	43.0%	135	88.80	11,990	113	
Ceramic (Hot Resin)	32.0%	108	8.58	928	113	
Clear Gelcoat	41.0%	460	28.57	13,139	605	
White Gelcoat	31.0%	276	9.32	2,572	605	
Color Gelcoat	35.0%	335	27.30	9,154	605	
Tooling Gelcoat	50.0%	646	0.30	197	440	
TOTALS			287.50	46,514		

Weighted Average NESHAP Emission Limit (lb/ton) = **225**

Weighted Average Actual Emission Factor (lb/ton) = **162**

COMPLIANT