



CALIFORNIA
AIR RESOURCES BOARD

Draft

**2013, 2014
and 2015**

CONSUMER &

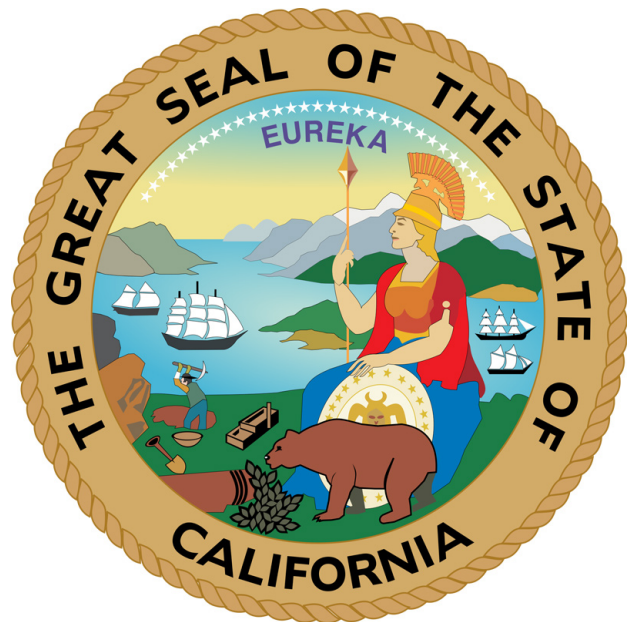
COMMERCIAL

PRODUCTS

SURVEY

December 6, 2018

Survey Data
Highlights



Draft 2013, 2014, and 2015 Consumer & Commercial Products Survey Data Highlights

On December 6, 2018, California Air Resources Board (CARB) staff published its Draft 2013, 2014, and 2015 Consumer & Commercial Products Survey Data and Supplemental materials for stakeholder review and feedback. These draft materials provide a detailed summary of consumer product sales, emissions, volatile organic compound content, chemical speciation, reactivity, and other information for over 400 categories of consumer products over a three-year period. In total, more than 1,500 product manufacturers and formulators participated in this effort, providing product sales and chemical formulation information for over 300,000 products sold in California.

Some stakeholders have requested that CARB supplement its draft survey summary data with additional information highlighting key data parameters. CARB staff is therefore publishing this draft document to illustrate the Top 25 consumer product categories in each reporting year for the following:

- Product Sales: The total gross weight of product sales reported to CARB as part of the survey.
- Volatile Organic Compound (VOC) Emissions: Total VOC emissions per category codes in tons per day, after application of any applicable fate and transport adjustments as described in Draft Fate and Transport Adjustments.
- Total Organic Gas (TOG) Emissions: Total TOG emissions per category codes in tons per day, after application of any applicable fate and transport adjustments as described in Draft Fate and Transport Adjustments.
- Ozone Forming Potential: Amount of ozone potentially generated by the release into the atmosphere of the TOG ingredients of a product category. It is equal to the product of total mass (i.e., Sales) times the reactivity (i.e., Sales-Weighted PWMIR of a category, where PWMIR is Product Weighted Maximum Incremental Reactivity as defined under Title 17 CCR, section 94521(a)(64)).

These draft Top 25 lists are for illustrative purposes only. CARB staff recognizes that these rankings are dependent upon how inclusively or exclusively each category code is defined.

DRAFT
Top 25 Survey Category Codes
Product Sales Volume

2013 DATA			2014 DATA			2015 DATA		
Category Code	Category Name	Sales (tpd)	Category Code	Category Name	Sales (tpd)	Category Code	Category Name	Sales (tpd)
20903	Detergent	964	20903	Detergent	1016	20903	Detergent	1010
31202	Pet Care Products (pet litter, etc.)	657	31202	Pet Care Products (pet litter, etc.)	822	31202	Pet Care Products (pet litter, etc.)	651
20311	General Purpose Cleaner (nonaerosol)	404	20311	General Purpose Cleaner (nonaerosol)	470	20311	General Purpose Cleaner (nonaerosol)	449
21105	Inks, Toners, etc. for office equipment	312	21105	Inks, Toners, etc. for office equipment	297	20917	Whitener/Brightener*	297
20917	Whitener/Brightener	302	20917	Whitener/Brightener	294	20919	Liquid Fabric Softener	258
20919	Liquid Fabric Softener	291	20919	Liquid Fabric Softener	282	20401	Dish Detergent/Soap (manual)	254
20401	Dish Detergent/Soap (manual)	235	20401	Dish Detergent/Soap (manual)	235	20707	Fire Starter (not charcoal lighter material)*	228
30615	Shampoo	182	20707	Fire Starter (not charcoal lighter material)	227	30615	Shampoo	198
30207	Body Wash/Mousse/Gel/Soap/Foam/Scrub	167	21201	Algaecide/Disinfectant/Shock Treatment/etc.	217	30215	General Use Hand or Body Cleaner or Soap	184
20707	Fire Starter (not charcoal lighter material)	151	30615	Shampoo	205	30207	Body Wash/Mousse/Gel/Soap/Foam/Scrub	162
20899	Other garden and lawn care products	138	21299	Other pool/spa/etc. maintenance products	203	30602	Conditioner without styling claims	134
30208	Body Wipes/Towelettes	137	30215	General Use Hand or Body Cleaner or Soap	185	30208	Body Wipes/Towelettes	130
30215	General Use Hand or Body Cleaner or Soap	134	30207	Body Wash/Mousse/Gel/Soap/Foam/Scrub	178	21201	Algaecide/Disinfectant/Shock Treatment/etc.	122
70204	Auto Windshield Washer Fluid (Not "A")	121	30602	Conditioner without styling claims	132	31006	Mouthwash/Rinse	113
30602	Conditioner without styling claims	117	20899	Other garden and lawn care products	130	20402	Dish Detergent/Soap (machine)	104
30404	Hand and Body Conditioner, Lotion, etc.	115	30404	Hand and Body Conditioner, Lotion, etc.	122	30404	Hand and Body Conditioner, Lotion, etc.	101
20402	Dish Detergent/Soap (machine)	112	30208	Body Wipes/Towelettes	109	20306	Disinfectant (nonaerosol)	98
21201	Algaecide/Disinfectant/Shock Treatment/etc.	108	20402	Dish Detergent/Soap (machine)	107	20899	Other garden and lawn care products	89
20306	Disinfectant (nonaerosol)	105	20306	Disinfectant (nonaerosol)	93	70204	Auto Windshield Washer Fluid (Not "A")	77
31006	Mouthwash/Rinse	81	31006	Mouthwash/Rinse	88	20902	Detergent Booster*	69
20902	Detergent Booster	67	20313	General Purpose Degreaser (nonaerosol)	70	31008	Toothpaste, Gel, Polish, and Powder	60
20701	Charcoal Lighter Material	64	20902	Detergent Booster	69	10199	Other adhesives	58
31008	Toothpaste, Gel, Polish, and Powder	61	20329	Sanitizer (nonaerosol)	59	21005	Drain Opener	58
20702	Fire Log and Related Products	61	70204	Auto Windshield Washer Fluid (Not "A")	55	20313	General Purpose Degreaser (nonaerosol)	56
30202	Anti-microbial hand or body cleaner or soap	60	30202	Anti-microbial hand or body cleaner or soap	55	40404	Crawling Bug Insecticide (nonaerosol)	55

DRAFT
Top 25 Survey Category Codes
Volatile Organic Compound Emissions

2013 DATA			2014 DATA			2015 DATA		
Category Code	Category Name	VOC (tpd)	Category Code	Category Name	VOC (tpd)	Category Code	Category Name	VOC (tpd)
30201	Anti-microbial Wash (Hand Sanitizer)	11.4	30201	Anti-microbial Wash (Hand Sanitizer)	11.9	30201	Anti-microbial Wash (Hand Sanitizer)	12.4
30606	Hair Finishing Spray	11.2	30606	Hair Finishing Spray	10.8	30502	Personal Fragrance Product <=20%	10.4
30502	Personal Fragrance Product <=20%	10.5	30502	Personal Fragrance Product <=20%	10.5	30606	Hair Finishing Spray	10.1
30710	Rubbing Alcohol	10.1	30710	Rubbing Alcohol	8.1	30710	Rubbing Alcohol	9.0
70203	Auto Windshield Washer Fluid ("A")	8.0	70203	Auto Windshield Washer Fluid ("A")	7.0	70203	Auto Windshield Washer Fluid ("A")	8.9
20305	Disinfectant (aerosol)	5.8	20305	Disinfectant (aerosol)	6.9	20305	Disinfectant (aerosol)	6.2
20311	General Purpose Cleaner (nonaerosol)	5.2	20311	General Purpose Cleaner (nonaerosol)	6.6	20311	General Purpose Cleaner (nonaerosol)	5.2
20104	Air Freshener, liquid/pump spray	4.0	20903	Detergent	4.1	20903	Detergent	4.5
20903	Detergent	3.7	20104	Air Freshener, liquid/pump spray	3.8	20104	Air Freshener, liquid/pump spray	4.0
20102	Air Freshener, Single Phase Aerosol	3.3	10115	Plastic Pipe Cement and Primer	3.4	30411	Sunscreen (hair or body) (aerosol)	3.5
21013	Multi-purpose Lubricant (solid and semisolid)	3.2	30411	Sunscreen (hair or body) (aerosol)	3.1	20103	Dual Purpose Air Freshener/etc. (aerosol)	2.7
20103	Dual Purpose Air Freshener/etc. (aerosol)	2.6	20102	Air Freshener, Single Phase Aerosol	2.8	20102	Air Freshener, Single Phase Aerosol	2.5
30411	Sunscreen (hair or body) (aerosol)	2.4	20103	Dual Purpose Air Freshener/etc. (aerosol)	2.4	20919	Liquid Fabric Softener	2.1
20919	Liquid Fabric Softener	2.2	21013	Multi-purpose Lubricant (solid and semisolid)	2.3	21013	Multi-purpose Lubricant (solid and semisolid)	2.0
30501	Deodorant Body Spray	2.2	20919	Liquid Fabric Softener	2.2	20701	Charcoal Lighter Material	2.0
60216	Paint Thinner (nonaerosol)	1.9	30501	Deodorant Body Spray	2.0	30501	Deodorant Body Spray	1.9
40403	Crawling Bug Insecticide (aerosol)	1.8	20701	Charcoal Lighter Material	1.8	20101	Air Freshener, Double Phase Aerosol	1.9
20701	Charcoal Lighter Material	1.8	20153	Scented Candle	1.7	30101	Antiperspirant	1.8
21405	Floor Wax Stripper	1.7	60205	Denatured Alcohol	1.7	20313	General Purpose Degreaser (nonaerosol)	1.8
30705	External Analgesic Product	1.7	20101	Air Freshener, Double Phase Aerosol	1.6	40403	Crawling Bug Insecticide (aerosol)	1.7
20101	Air Freshener, Double Phase Aerosol	1.7	20601	Aerosol Cooking Spray	1.6	60205	Denatured Alcohol	1.7
70206	Body Repair Products (other than coatings)	1.6	20313	General Purpose Degreaser (nonaerosol)	1.6	20601	Aerosol Cooking Spray	1.6
60205	Denatured Alcohol	1.5	30101	Antiperspirant	1.6	31006	Mouthwash/Rinse	1.4
20153	Scented Candle	1.5	40403	Crawling Bug Insecticide (aerosol)	1.5	21405	Floor Wax Stripper	1.3
20601	Aerosol Cooking Spray	1.5	30705	External Analgesic Product	1.5	20153	Scented Candle	1.3

DRAFT
Top 25 Survey Category Codes
Total Organic Gas Emissions

2013 DATA			2014 DATA			2015 DATA		
Category Code	Category Name	TOG (tpd)	Category Code	Category Name	TOG (tpd)	Category Code	Category Name	TOG (tpd)
30606	Hair Finishing Spray	12.1	30606	Hair Finishing Spray	12.9	30606	Hair Finishing Spray	12.9
30201	Anti-microbial Wash (Hand Sanitizer)	11.4	30201	Anti-microbial Wash (Hand Sanitizer)	12.0	30201	Anti-microbial Wash (Hand Sanitizer)	12.5
30502	Personal Fragrance Product <=20%	10.6	30502	Personal Fragrance Product <=20%	10.6	30502	Personal Fragrance Product <=20%	10.5
30710	Rubbing Alcohol	10.2	20311	General Purpose Cleaner (nonaerosol)	9.2	70208	Brake Cleaner	9.3
70203	Auto Windshield Washer Fluid ("A")	8.0	60213	Multi-purpose Solvent (nonaerosol)	8.7	30710	Rubbing Alcohol	9.0
60213	Multi-purpose Solvent (nonaerosol)	8.0	70208	Brake Cleaner	8.7	70203	Auto Windshield Washer Fluid ("A")	8.9
70208	Brake Cleaner	7.9	30710	Rubbing Alcohol	8.1	20903	Detergent	7.2
30404	Hand and Body Conditioner, Lotion, etc.	7.2	70203	Auto Windshield Washer Fluid ("A")	7.0	20311	General Purpose Cleaner (nonaerosol)	7.1
20311	General Purpose Cleaner (nonaerosol)	7.2	20305	Disinfectant (aerosol)	6.9	30101	Antiperspirant	6.9
20102	Air Freshener, Single Phase Aerosol	6.4	20903	Detergent	6.9	30404	Hand and Body Conditioner, Lotion, etc.	6.8
30101	Antiperspirant	6.0	30404	Hand and Body Conditioner, Lotion, etc.	6.6	60213	Multi-purpose Solvent (nonaerosol)	6.3
20903	Detergent	5.9	60211	Lacquer Thinner	5.1	20305	Disinfectant (aerosol)	6.3
20305	Disinfectant (aerosol)	5.8	20102	Air Freshener, Single Phase Aerosol	4.6	21013	Multi-purpose Lubricant (solid and semisolid)	4.7
60211	Lacquer Thinner	5.3	21013	Multi-purpose Lubricant (solid and semisolid)	4.5	60211	Lacquer Thinner	4.5
30102	Deodorant	4.6	20104	Air Freshener, liquid/pump spray	4.4	20104	Air Freshener, liquid/pump spray	4.5
20104	Air Freshener, liquid/pump spray	4.5	10115	Plastic Pipe Cement and Primer	4.2	60216	Paint Thinner (nonaerosol)	4.3
40403	Crawling Bug Insecticide (aerosol)	4.4	30101	Antiperspirant	4.2	20102	Air Freshener, Single Phase Aerosol	4.3
21013	Multi-purpose Lubricant (solid and semisolid)	4.1	60214	Paint Remover or Stripper	3.9	40403	Crawling Bug Insecticide (aerosol)	4.2
60214	Paint Remover or Stripper	3.5	30602	Conditioner without styling claims	3.8	20313	General Purpose Degreaser (nonaerosol)	3.8
30602	Conditioner without styling claims	3.4	30102	Deodorant	3.7	30602	Conditioner without styling claims	3.8
20313	General Purpose Degreaser (nonaerosol)	3.3	20313	General Purpose Degreaser (nonaerosol)	3.5	30102	Deodorant	3.6
60216	Paint Thinner (nonaerosol)	3.0	40403	Crawling Bug Insecticide (aerosol)	3.4	30411	Sunscreen (hair or body) (aerosol)	3.6
20103	Dual Purpose Air Freshener/etc. (aerosol)	2.6	30411	Sunscreen (hair or body) (aerosol)	3.2	60214	Paint Remover or Stripper	3.4
30705	External Analgesic Product	2.6	60216	Paint Thinner (nonaerosol)	2.7	20103	Dual Purpose Air Freshener/etc. (aerosol)	2.7
30411	Sunscreen (hair or body) (aerosol)	2.5	20103	Dual Purpose Air Freshener/etc. (aerosol)	2.4	30603	Dye, permanent	2.5

DRAFT
Top 25 Survey Category Codes
Ozone Forming Potential

2013 DATA			2014 DATA			2015 DATA		
Category Code	Category Name	Ozone Forming Potential (tpd)	Category Code	Category Name	Ozone Forming Potential (tpd)	Category Code	Category Name	Ozone Forming Potential (tpd)
20311	General Purpose Cleaner (nonaerosol)	26.2	20311	General Purpose Cleaner (nonaerosol)	33.1	20903	Detergent	31.5
20104	Air Freshener, liquid/pump spray	25.9	20903	Detergent	29.4	20311	General Purpose Cleaner (nonaerosol)	27.3
20903	Detergent	24.5	20104	Air Freshener, liquid/pump spray	24.2	20104	Air Freshener, liquid/pump spray	25.4
30502	Personal Fragrance Product <=20%	20.2	30502	Personal Fragrance Product <=20%	19.7	30502	Personal Fragrance Product <=20%	19.8
30404	Hand and Body Conditioner, Lotion, etc.	19.3	30201	Anti-microbial Wash (Hand Sanitizer)	18.3	30201	Anti-microbial Wash (Hand Sanitizer)	19.0
30201	Anti-microbial Wash (Hand Sanitizer)	17.4	30404	Hand and Body Conditioner, Lotion, etc.	16.7	30404	Hand and Body Conditioner, Lotion, etc.	17.1
30606	Hair Finishing Spray	15.8	30606	Hair Finishing Spray	15.5	30606	Hair Finishing Spray	14.7
30999	Other nail care products	13.0	20919	Liquid Fabric Softener	11.6	20919	Liquid Fabric Softener	11.2
21405	Floor Wax Stripper	11.8	20153	Scented Candle	11.5	20153	Scented Candle	10.5
20919	Liquid Fabric Softener	11.7	10115	Plastic Pipe Cement and Primer	10.8	20305	Disinfectant (aerosol)	9.7
30102	Deodorant	10.5	20305	Disinfectant (aerosol)	10.6	20313	General Purpose Degreaser (nonaerosol)	9.6
20153	Scented Candle	10.1	20313	General Purpose Degreaser (nonaerosol)	9.6	30207	Body Wash/Mousse/Gel/Soap/Foam/Scrub	9.4
30710	Rubbing Alcohol	10.1	30602	Conditioner without styling claims	9.4	30602	Conditioner without styling claims	9.1
20313	General Purpose Degreaser (nonaerosol)	9.4	21405	Floor Wax Stripper	9.1	30102	Deodorant	8.0
20305	Disinfectant (aerosol)	9.0	30207	Body Wash/Mousse/Gel/Soap/Foam/Scrub	8.7	21405	Floor Wax Stripper	7.9
30207	Body Wash/Mousse/Gel/Soap/Foam/Scrub	8.8	30102	Deodorant	8.1	30603	Dye, permanent	7.0
30602	Conditioner without styling claims	7.5	31202	Pet Care Products (pet litter, etc.)	7.8	30615	Shampoo	6.2
20102	Air Freshener, Single Phase Aerosol	7.3	30615	Shampoo	6.5	70203	Auto Windshield Washer Fluid ("A")	5.9
30615	Shampoo	5.6	30215	General Use Hand or Body Cleaner or Soap	5.6	30710	Rubbing Alcohol	5.7
70203	Auto Windshield Washer Fluid ("A")	5.5	30603	Dye, permanent	5.5	30215	General Use Hand or Body Cleaner or Soap	5.6
30705	External Analgesic Product	4.9	60213	Multi-purpose Solvent (nonaerosol)	5.1	31202	Pet Care Products (pet litter, etc.)	5.5
60213	Multi-purpose Solvent (nonaerosol)	4.9	20102	Air Freshener, Single Phase Aerosol	5.1	30411	Sunscreen (hair or body) (aerosol)	5.4
60216	Paint Thinner (nonaerosol)	4.8	30710	Rubbing Alcohol	5.0	20102	Air Freshener, Single Phase Aerosol	4.5
31202	Pet Care Products (pet litter, etc.)	4.3	30411	Sunscreen (hair or body) (aerosol)	4.7	30101	Antiperspirant	4.2
30215	General Use Hand or Body Cleaner or Soap	4.3	70203	Auto Windshield Washer Fluid ("A")	4.7	20401	Dish Detergent/Soap (manual)	4.1