



Regulatory Strategies Work Group:

- Single Phase Aerosol Air Fresheners
- Double Phase Aerosol Air Fresheners
- Dual Purpose/Disinfectant (aerosol)
- Liquid/Pump Spray Air Fresheners
- Solid/Semi-Solid Air Fresheners

May 28, 2019
10:00am-12:00pm



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Air Freshening Categories Workgroup Teleconference Overview

- ❖ Current VOC Standard
- ❖ Category Overview
- ❖ Points to Consider

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Current Air Freshening VOC standards

- ❖ Single Phase Aerosol 30%, effective 1/1/96
- ❖ Double Phase Aerosol 20%, effective 12/31/12
- ❖ Dual Purpose/Disinfectant 60%, effective 1/1/94
- ❖ Liquid/Pump Spray 18%, effective 1/1/93
- ❖ Solid/Semisolid 3%, effective 1/1/93

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Category Overview: Single Phase Aerosol Air Fresheners

❖ *“Air Freshener” means any product including, but not limited to, liquids, semisolids, solids, aerosol or pump sprays, wicks, wipes, diffusers, powders, or crystals, designed or labeled for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. “Air Freshener” does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, “Odor Remover/Eliminator,” or “Toilet/Urinal Care Product.”*

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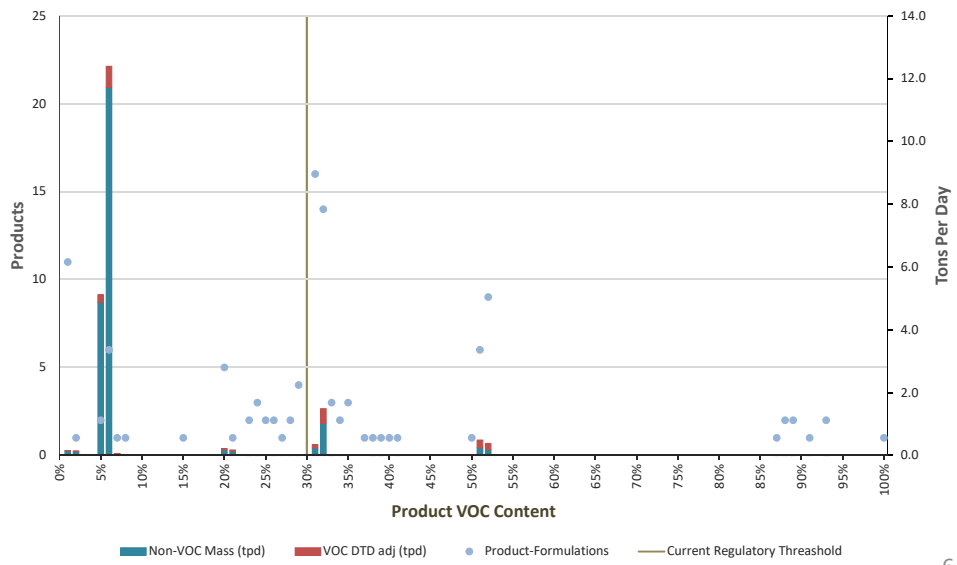
Category Overview: Single Phase Aerosol Air Fresheners

Category Statistics

Product Data					Emissions Data <i>(Fate and Transport Adjusted)</i>								
Reporting Companies	Reported Products	Sales (tpd)	Sales Weighted Average VOC Content (undiluted)	Speciation					VOC (tpd)	ROG (tpd)	TOG (tpd)	PWMI R (gO ₃ /g)	Ozone Forming Potential (tpd)
				VOC	LVP-VOC	Exempt	Water	Other					
53	1213	21.05	9.80%						2.06	3.12	3.79	0.19	4.01

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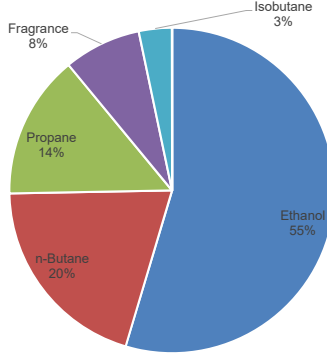
Category Overview: Single Phase Aerosol Air Fresheners



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Category Overview: Single Phase Aerosol Air Fresheners

VOC Speciation For Products Between 0% and 40% VOC Content



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Discussion & Questions

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Category Overview:

Double Phase Aerosol Air Fresheners

- ❖ “Air Freshener” means any product including, but not limited to, liquids, semisolids, solids, aerosol or pump sprays, wicks, wipes, diffusers, powders, or crystals, designed or labeled for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. “Air Freshener” does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, “Odor Remover/Eliminator,” or “Toilet/Urinal Care Product.”
- ❖ “Double Phase Aerosol Air Freshener” means an aerosol “Air Freshener,” with the liquid contents in two or more distinct phases, that requires the product container be shaken before use to mix the phases, producing an emulsion.

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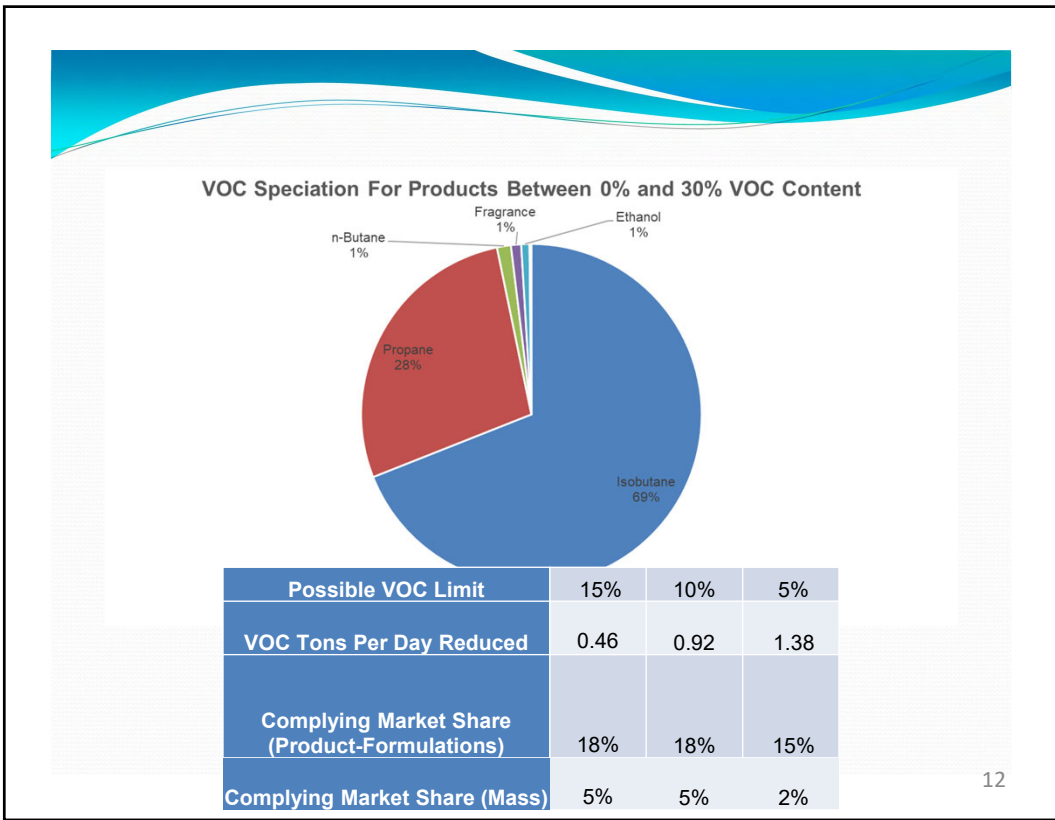
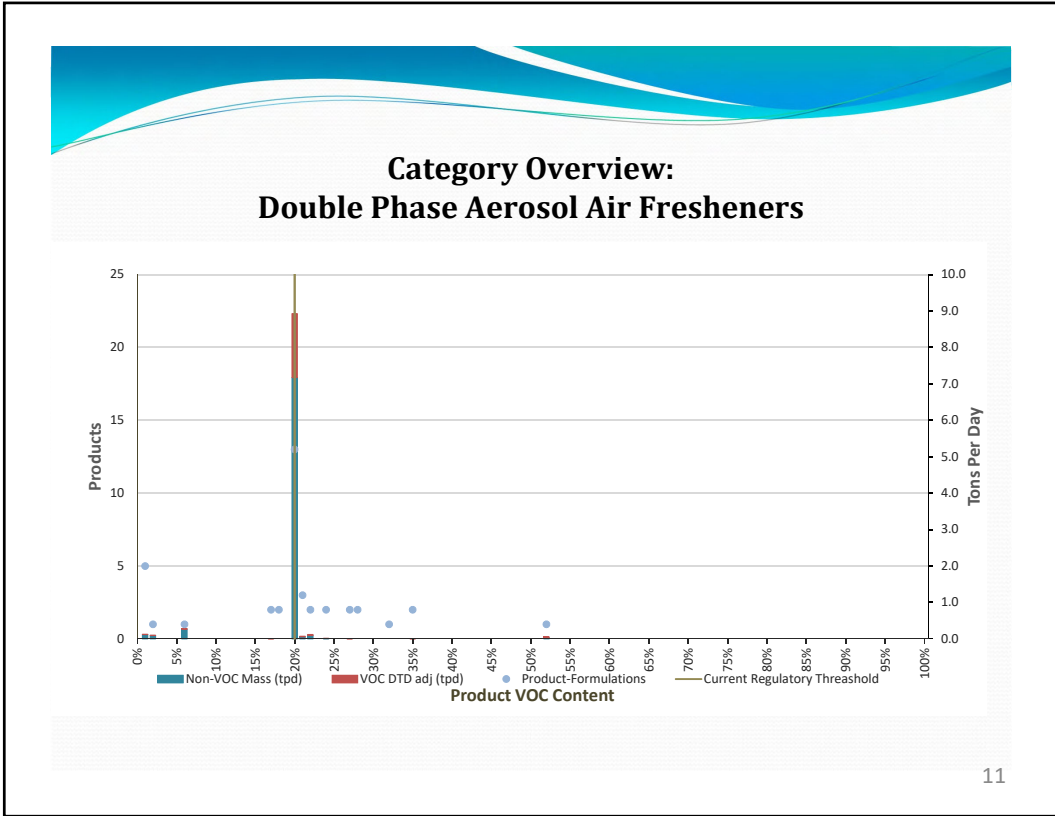
Category Overview:

Double Phase Aerosol Air Fresheners

Category Statistics

Product Data					Emissions Data (Fate and Transport Adjusted)								
Reporting Companies	Reported Products	Sales (tpd)	Sales Weighted Average VOC Content (undiluted)	Speciation					VOC (tpd)	ROG (tpd)	TOG (tpd)	PWMI R (gO ₃ /g)	Ozone Forming Potential (tpd)
				VOC	LVP-VOC	Exempt	Water	Other					
23	294	9.68	19.02%						1.84	1.86	1.88	0.21	2.01

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Discussion & Questions

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Category Overview:

Dual Purpose Air Fresheners/Disinfectant (aerosol)

- ❖ *“Air Freshener” means any product including, but not limited to, liquids, semisolids, solids, aerosol or pump sprays, wicks, wipes, diffusers, powders, or crystals, designed or labeled for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. “Air Freshener” does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, “Odor Remover/Eliminator,” or “Toilet/Urinal Care Product.”*
- ❖ *“Dual Purpose Air Freshener/Disinfectant” means an aerosol “Air Freshener” that is designed or labeled for use as both a “Disinfectant” and an “Air Freshener,” or is so represented on any sticker, label, packaging, or literature attached to the product container.*

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Category Overview: Dual Purpose Air Fresheners/Disinfectant (aerosol)

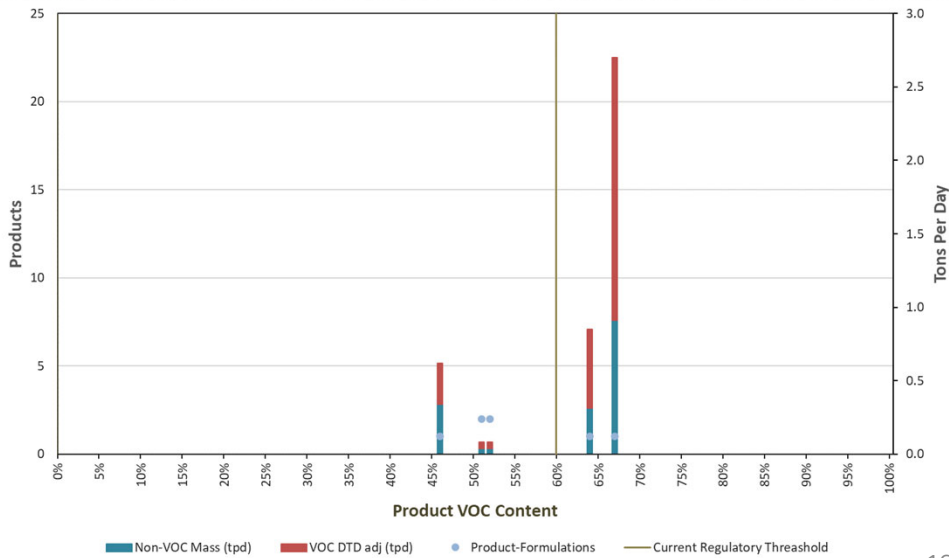
Category Statistics

Product Data					Emissions Data <i>(Fate and Transport Adjusted)</i>								
Reporting Companies	Reported Products	Sales (tpd)	Sales Weighted Average VOC Content (undiluted)	Speciation					VOC (tpd)	ROG (tpd)	TOG (tpd)	PWMI R (gO ₃ /g)	Ozone Forming Potential (tpd)
				VOC	LVP-VOC	Exempt	Water	Other					
8	34	4.33	62.05%						2.68	2.73	2.74	0.95	4.13

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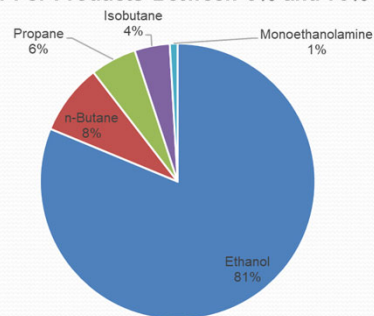
Category Overview: Dual Purpose Air Fresheners/Disinfectant (aerosol)



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Category Overview: Dual Purpose Air Fresheners/Disinfectant (aerosol)

VOC Speciation For Products Between 0% and 70% VOC Content



Possible VOC Limit	55%	50%	45%
VOC Tons Per Day Reduced	0.18	0.36	0.55
Complying Market Share (Product-Formulations)	71%	14%	0%
Complying Market Share (Mass)	18%	14%	0%

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Discussion & Questions

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Category Overview: Liquid/Pump Spray Air Fresheners

❖ “Air Freshener” means any product including, but not limited to, liquids, semisolids, solids, aerosol or pump sprays, wicks, wipes, diffusers, powders, or crystals, designed or labeled for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. “Air Freshener” does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, “Odor Remover/Eliminator,” or “Toilet/Urinal Care Product.”

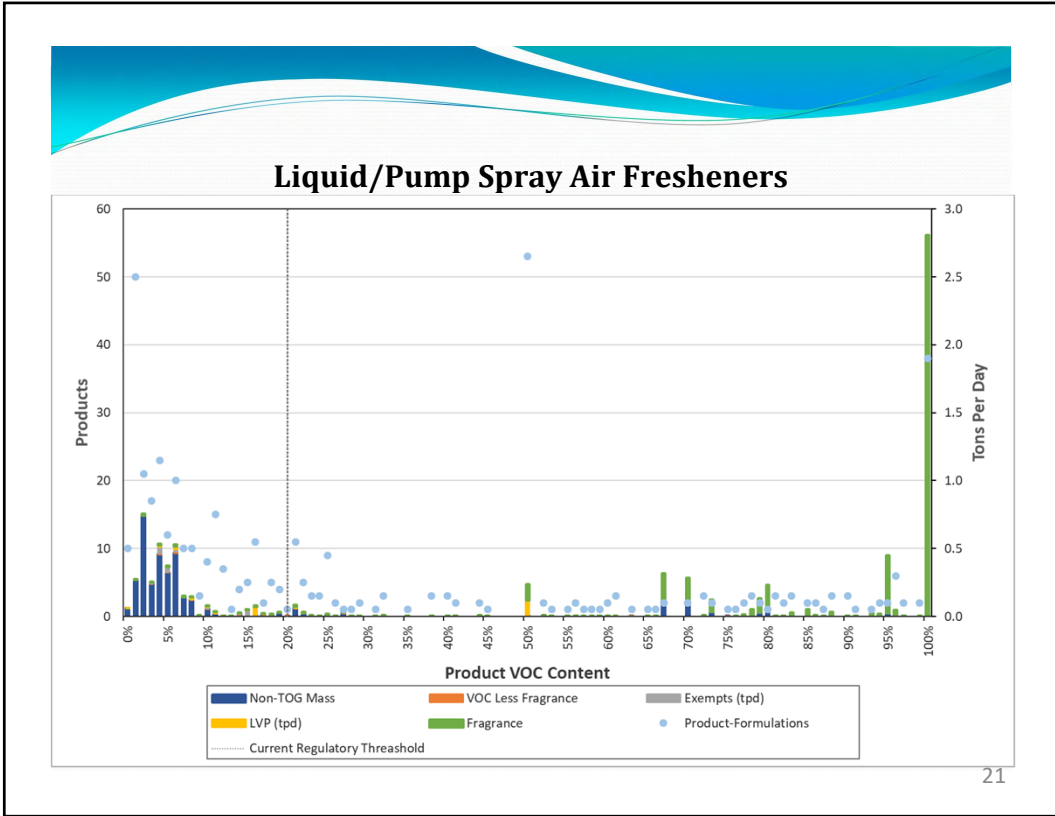
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Category Overview: Liquid/Pump Spray Air Fresheners

Category Statistics

Product Data					Emissions Data (Fate and Transport Adjusted)								
Reporting Companies	Reported Products	Sales (tpd)	Sales Weighted Average VOC Content (undiluted)	Speciation					VOC (tpd)	ROG (tpd)	TOG (tpd)	PWI R (gO ₃ /g)	Ozone Forming Potential (tpd)
				VOC	LVP-VOC	Exempt	Water	Other					
127	4035	8.52	54.04%						4.60	4.87	5.04	3.44	29.30

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Discussion & Questions

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Category Overview: Solid/Semisolid Air Fresheners

❖ “Air Freshener” means any product including, but not limited to, liquids, semisolids, solids, aerosol or pump sprays, wicks, wipes, diffusers, powders, or crystals, designed or labeled for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. “Air Freshener” does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, “Odor Remover/Eliminator,” or “Toilet/Urinal Care Product.”

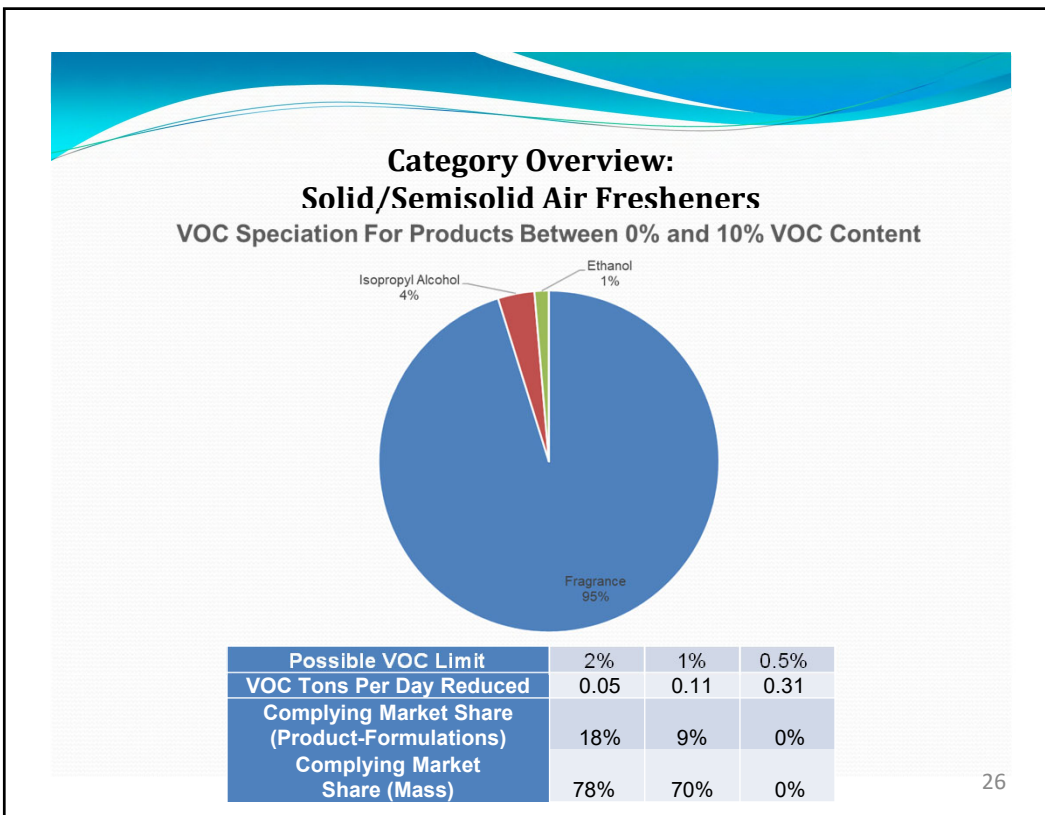
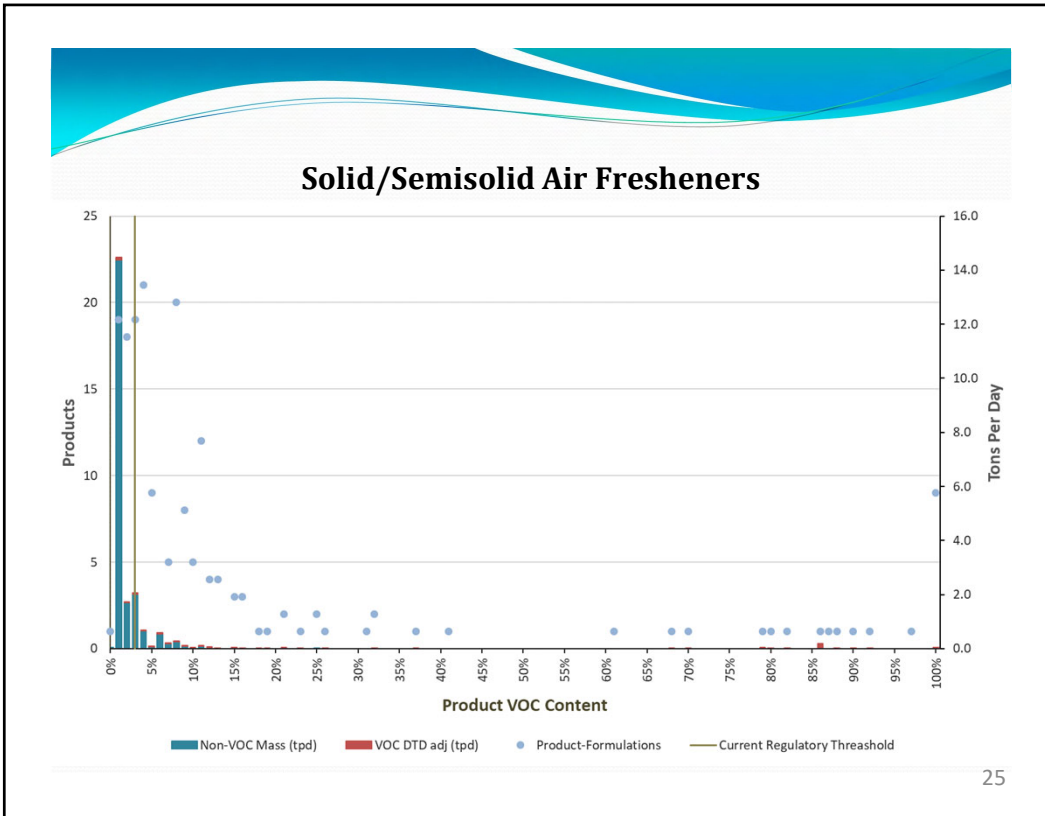
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Category Overview: Solid/Semisolid Air Fresheners

Category Statistics

Product Data					Emissions Data (Fate and Transport Adjusted)								
Reporting Companies	Reported Products	Sales (tpd)	Sales Weighted Average VOC Content (undiluted)	Speciation					VOC (tpd)	ROG (tpd)	TOG (tpd)	PWI R (gO ₃ /g)	Ozone Forming Potential (tpd)
				VOC	LVP-VOC	Exempt	Water	Other					
81	3670	20.84	2.71%						0.56	0.59	0.59	0.16	3.29

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Discussion & Questions

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Points to Consider

- ❖ Single Phase Aerosol Air Fresheners and Double Phase Aerosol Air Fresheners hold promise for future VOC reductions.
- ❖ Dual Purpose/Disinfectant (aerosol), Liquid/Pumpspray, and Solid/Semisolid Air Fresheners look less promising for future VOC reductions.

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