

### Public Hearing to Consider Proposed Amendments to the Consumer Product Regulations and Test Method 310

California Air Resources Board Meeting March 25, 2021

## What Are Consumer Products?



Types of products include:

Personal Care Products

**Cleaning Products** 

Antiperspirants and Deodorants

**Aerosol Paints** 

**Automotive Maintenance Products** 

Household Pesticides



### Contributions to Air Pollution



Active ingredients



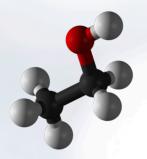
Solvents



Propellants



Fragrances





# Consumer Product Regulations

- Over 150 Product Categories Regulated
- 50 Percent Reductions in VOC from Consumer Products

Antiperspirants and Deodorants VOC Limits

VOC Limits for 64 Consumer Product Categories VOC Limits for 31 Consumer Product Categories VOC Limits for 17 Consumer Product Categories

1980s

1990s

2000s

2010s

Aerosol Coatings VOC Limits for 35 Categories Aerosol Coatings Reactivity Limits for 36 Categories

First GHG and TAC Prohibitions

Reactivity Option for Multi-purpose Lubricants



# Integrated Regulatory Approach

Establish mass-based VOC standards

Establish product-weighted reactivity-based limits

250 tpd VOC reductions

REGULATORY APPROACHES

Prohibit certain
Toxic Air Contaminants

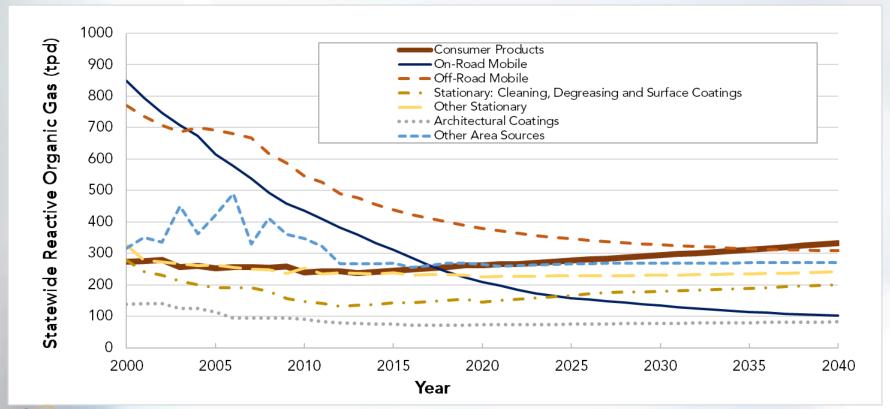
13 tpd TAC reductions

Prohibit compounds with high Global Warming Potential

0.24 MMT CO<sub>2</sub>e reductions



## Consumer Product Emissions are Increasing

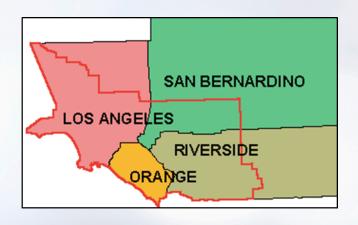




### **SIP Commitments**

By 2023: 1-2 tpd in South Coast





By 2031: 4-5 tpd in South Coast 8-10 tpd Statewide



## 2013-2015 Consumer Product Surveys

- 1,500 product manufacturers
- One million products
- 491 consumer product categories





# Regulatory Development Process

- Five public workshops
- 22 Topic-specific work group meetings
- Regular meetings with product manufacturers, fragrance formulators, trade organizations, NGOs, and other interested stakeholders

First Public Workshop (47 Product Categories)

Public Work Group Meetings Second Public Workshop (7 Product Categories)

Additional Public Work Group Meetings Three Additional
Public Workshops
(Refine Proposed
Amendments)

Board Hearing

2019

2020

2021



# **Proposed Categories**

Category	VOC Emissions (2015 tpd)	Emissions Rank
Personal Fragrance Products Hair Care Products - Hair Finishing Spray	14.84	2
<ul> <li>Dry Shampoo</li> <li>Hair Shine</li> <li>Temporary Hair Color</li> </ul>	12.97	3
Manual Aerosol Air Freshener	4.22	7
Aerosol Crawling Bug Insecticide	1.92	14

### **Most Recent VOC Standards**

Personal Fragrance Products Hair Finishing Spray Hair Shine

Aerosol Crawling Bug Insecticide Temporary Hair Color Manual Aerosol Air Freshener

1999

2000

2001

2002

2003

2004

2010

2014



### Manual Aerosol Air Freshener



### Staff Proposal

Combine single and double phase aerosol air freshener into Manual Aerosol Air Freshener

- 10% VOC Standard by 2023; 5% VOC Standard by 2027

Create three new aerosol air freshener categories:

- Automatic Aerosol Air Freshener retains 30% standard
- Total Release Air Freshener: 25% VOC standard by 2023
- Concentrated Aerosol Air Freshener:
   15% VOC standard by 2023; 10% VOC standard by 2027

VOC Reductions

2023: 1.07 tpd Statewide, 0.45 tpd in South Coast

2031: 1.73 tpd Statewide, 0.72 tpd in South Coast



### **Hair Care Products**



### Staff Proposal

#### Tier 1 (2023 Effective Date):

- 50% VOC standard for Hair Finishing Spray
- 55% VOC standard for Dry Shampoo

#### Tier 2 (2029 Effective Date):

50% VOC standard for Dry Shampoo,
 Hair Shine, and Temporary Hair Color

VOC standards aligned for these four categories

VOC Reductions

2023: 1.52 tpd Statewide, 0.63 tpd in South Coast

2031: 1.91 tpd Statewide, 0.78 tpd in South Coast



# Personal Fragrance Products



### Staff Proposal

70% VOC Standard by January 1, 2023 for:

- Aerosol Personal Fragrance Products
- Non-aerosol Personal Fragrance Products with less than or equal to 7% fragrance

50% VOC Standard by January 1, 2031 for:

- Aerosol Personal Fragrance Products
- Non-aerosol Personal Fragrance Products with less than or equal to 10% fragrance

Technology assessment by 2027

VOC Reductions

2023: 0.41 tpd Statewide, 0.17 tpd in South Coast

2031: 5.05 tpd Statewide, 2.07 tpd in South Coast



# **Aerosol Crawling Bug Insecticide**



### Staff Proposal

8% VOC standard applicable January 1, 2030

Provides time to meet federal requirements

Aerosol Bed Bug Insecticide would retain current 15% VOC limit

VOC Reductions

2031: 0.81 tpd Statewide, 0.34 tpd in South Coast



## **Two Percent Fragrance Exemption**



### Staff Proposal

Sunset 2% fragrance exemption in 2031, with certain exceptions:

- 0.25% by weight of monoterpene ingredients allowed for Non-Aerosol General Purpose Cleaners/Degreasers in 2023 (GPC/GPD)
- Air Fresheners, Disinfectants, Sanitizers, and non-aerosol GPC/GPD retain 0.25% fragrance exemption in 2031

VOC Reductions

2031: 0.30 tpd Statewide, 0.12 tpd in South Coast



# **Compressed Gas Propellants**



### Staff Proposal

Create an innovative pathway to use compressed gas propellants in Hair Finishing Spray, Dry Shampoo, or Personal Fragrance Product categories if certain criteria are met:

- Replace HFC-152a propellant
- No increase in ozone forming potential relative to a representative product

Intended to encourage development of carbon neutral products



## **Other Proposed Amendments**



Ingredient prohibitions in the seven categories proposed for regulation:

- Perchloroethylene, trichloroethylene, methylene chloride, and PCBTF
- Substances with a GWP at or above 150

Energized Electrical Cleaner definition update

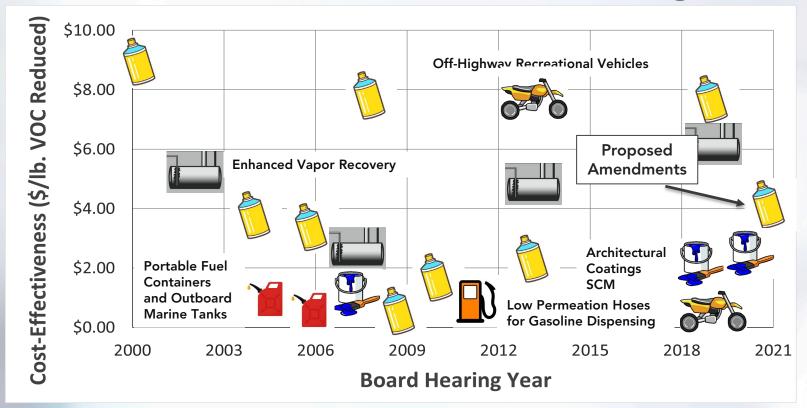
Addition of three substances to the Table of Maximum Incremental Reactivity Values

Adjustments to Alternative Control Plan and Innovative Product Exemption Eligibility Criteria

Updates to Test Method 310



## Cost Effectiveness of CARB VOC Regulations





# Regulatory Outcomes



Fulfills SIP commitment to attain federal ozone standard:

- 2023: 3.00 tpd Statewide, 1.25 tpd in South Coast
- 2031: 9.80 tpd Statewide, 4.03 tpd in South Coast

Precludes use of certain toxics and high-GWP GHGs

Proposed Innovative Product Exemption amendments to facilitate phase-out of HFC-152a



# 15-Day Changes



Add regulatory definition for monoterpene

Other minor modifications and clarifications



### Staff's Recommendation

Approve the Resolution approving for adoption the Proposed Amendments to the Consumer Product Regulations and Test Method 310 and 15-day changes

