



November 25, 2020

Mr. Joe Calavita  
Manager, Consumer Products Implementation Division  
California Air Resources Board  
Sacramento, CA 95812-0806

*Via electronic submission to [jcalavit@arb.ca.gov](mailto:jcalavit@arb.ca.gov)*

Re: Honeywell comments in response to the November 10, 2020 Public Webinar for Proposed Amendments to the Consumer Products Regulations

Dear Mr. Calavita,

On behalf of Honeywell International Inc. (Honeywell), thank you for the opportunity to submit these written comments in response to the materials presented at the November 10, 2020 Public Webinar for Proposed Amendments to the Consumer Products Regulations.

Honeywell is a global leader in providing technologies and innovations that can help the world solve its environmental and energy challenges. Our Fluorine Products business is a recognized leading innovator in the development of environmentally preferable fluorocarbons for use as aerosol propellants, solvents, refrigerants, foam blowing agents, and other uses. Since the 1990s, we have helped businesses replace ozone-depleting substances in these applications with alternatives that have less impact on the stratospheric ozone layer and climate change.

As relevant for these comments, Honeywell manufactures Solstice® HFO-1234ze that is already being used or can be used as an alternative to high-global-warming potential (GWP) propellants and Solstice HFO 1233zd as an alternative to VOC Solvents, in several of the products that would be affected by the amendments to the Consumer Products Regulation being discussed.

Honeywell would like to provide comments specifically on the newly proposed provisions for an Innovative Product Exemption (IPE) for products using compressed gas. While we so appreciate staff's willingness to work toward creative solutions to help industry meet CARB's goals, such a provision had not been discussed in the several previous workshops over the last 18 months to develop these amendments. Industry has been given very limited time to consider this proposal and provide meaningful comments with careful technical validation, especially considering the known performance challenges of a compressed gas based product.

As currently written, Honeywell does not believe the language gives enough clarity and direction to help CARB achieve further VOC reductions and create products that work. A better approach would be to encourage the transition to all available low-GWP alternative propellants, especially ones that are VOC-exempt, including a leading alternative, HFO-1234ze.

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HFO-1234ze has ultra-low global warming potential (less than one) and is VOC-exempted by US EPA and CARB. It is a solution that achieves both environmental goals of VOC and GWP reduction.

HFO-1234ze as a propellant has been successfully meeting sustainability and performance goals of consumer products in a wide range of formulations, including dry shampoo, styling hairspray, texturizing hairspray, hair shine spray, hair/body mousse, deodorant spray, etc. The table below shows a list of example products where HFO-1234ze is currently used.

Product Type	Details and weblinks
Dry Shampoo	<ul style="list-style-type: none"> <li>▪ Together Beauty: Life in the Fast Lane Dry Shampoo   <a href="https://www.sephora.com/product/together-beauty-life-in-fast-lane-dry-shampoo-p463115?skuld=2384378&amp;icid=products%20grid:p463115:product">https://www.sephora.com/product/together-beauty-life-in-fast-lane-dry-shampoo-p463115?skuld=2384378&amp;icid=products%20grid:p463115:product</a></li> <li>▪ Bravo Sierra: The “No Water” Field Shampoo   <a href="https://www.bravosierra.com/products/dry-shampoo">https://www.bravosierra.com/products/dry-shampoo</a></li> <li>▪ Monat: The Champ Conditioning Dry Shampoo   <a href="https://monatglobal.com/ca/the-champ-conditioning-dry-shampoo/">https://monatglobal.com/ca/the-champ-conditioning-dry-shampoo/</a></li> </ul>
Hairspray	<ul style="list-style-type: none"> <li>▪ Monat: Glossy Shine Mist   <a href="https://monatglobal.com/ca/hair-glossy-shine-mist/">https://monatglobal.com/ca/hair-glossy-shine-mist/</a></li> <li>▪ Monat: Dry Texturizing Spray   <a href="https://monatglobal.com/ca/dry-texturizing-spray/">https://monatglobal.com/ca/dry-texturizing-spray/</a></li> <li>▪ Monat: Strong Flexi-hold Hairspray   <a href="https://monatglobal.com/ca/strong-flexi-hold-hairspray/">https://monatglobal.com/ca/strong-flexi-hold-hairspray/</a></li> <li>▪ Sephora Collection: Texturizing Spray   <a href="https://www.sephora.com/product/texturizing-spray-p447153?skuld=2157212&amp;icid=products%20grid:p447153:product">https://www.sephora.com/product/texturizing-spray-p447153?skuld=2157212&amp;icid=products%20grid:p447153:product</a></li> </ul>
Mousse	<ul style="list-style-type: none"> <li>▪ Living Proof: Color Care Whipped Glaze   <a href="https://www.sephora.com/product/color-care-whipped-glaze-p442810?skuld=2211654&amp;icid=products%20grid:p442810:product">https://www.sephora.com/product/color-care-whipped-glaze-p442810?skuld=2211654&amp;icid=products%20grid:p442810:product</a></li> <li>▪ Flower Beauty: Supernova Celestial Priming Whip   <a href="https://www.flowerbeauty.com/products/supernova-celestial-priming-whip">https://www.flowerbeauty.com/products/supernova-celestial-priming-whip</a></li> <li>▪ Too Cool for School: Egg Mousse Body Oil   <a href="https://toocoolforschool.us/products/egg-mousse-body-oil">https://toocoolforschool.us/products/egg-mousse-body-oil</a></li> </ul>
Sunscreen	<ul style="list-style-type: none"> <li>▪ Tizo: Sheerfoam Body &amp; Face Sunscreen   <a href="https://tizoskin.com/product/sheerfoam-body-face-sunscreen-tinted/">https://tizoskin.com/product/sheerfoam-body-face-sunscreen-tinted/</a></li> </ul>
Body Deodorant	<ul style="list-style-type: none"> <li>▪ Bravo Sierra: Deodorant Body Spray   <a href="https://www.urbanoutfitters.com/shop/bravo-sierra-deodorant-body-spray2?category=SEARCHRESULTS&amp;color=000&amp;searchparams=q%3Dbravo%2520sierra&amp;type=REGULAR&amp;size=ONE%20SIZE&amp;quantity=1">https://www.urbanoutfitters.com/shop/bravo-sierra-deodorant-body-spray2?category=SEARCHRESULTS&amp;color=000&amp;searchparams=q%3Dbravo%2520sierra&amp;type=REGULAR&amp;size=ONE%20SIZE&amp;quantity=1</a></li> </ul>

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With respect to the criteria for the proposed Innovative Products Exemption (IPE), additional clarity would be helpful.

## Criterion (C) (1)

This first criteria refers to propellant ingredients in the complying IPE product. This subsection describes the percent volume needed in the product is 50%. However, it is unclear as to how to calculate the 50% volume; would it be by percentage of the container or of the product? It is also not clear if the 50% volume refers to all propellant ingredients as stated or is just for compressed gases, CO<sub>2</sub> and nitrogen. It would help to include an example of how to calculate the propellant percent volume in the text.

It is also not clear why this provision is limited to use of compressed gas propellant. Other propellants that reduce GWP and VOC should also be eligible for the IPE (also applicable to Criterion (C) (2)).

## Criterion (C) (3)

It is unclear what criterion (C)(3) is addressing. It refers to non-propellant mass but does not state whether the non-propellant mass is in weight or volume. In addition, during the workshop, the staff stated the non-propellant mass cannot decrease (slide 23) from the representative sample formula. However, the text in the provision states the non-propellant mass cannot "exceed" the representative sample. It would be helpful if CARB could clarify its intent. Also, adding a few example formulas with alternate ingredients to allow for formulation flexibility to calculate the non-propellant mass to the text would be very helpful.

## Criterion (C) (4)

This criterion is critical to prevent the increase of ozone forming potential products from being introduced into the atmosphere as that would negate reductions in VOC emissions. This criterion also would prevent the use of VOC solvents used as described in criterion (C) (3).

Honeywell supports the use of the Maximum Incremental Reactivity (MIR) of compounds and believes the Reactivity concept should be expanded in these regulations and possibly could even be further reduced by using other lower MIR solutions. A clearer, simpler approach, with more formulation flexibility that would qualify for an IPE, rather than the above proposed criteria that is unclear and very limiting, would better encourage innovation.

Thank you for this opportunity to comment.

Sincerely,

Laura Reinhard  
Vice President, General Manager  
Honeywell Foam & Industrial Products