



September 26, 2011

*Via email*

Mr. Ali Mirzakhali  
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Mr. Alexander Ryan-Bond  
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Subject: Comments on the Ozone Transport Commission's September 2011 Draft Model Rule on the Inclusion of "Paint Thinner and Multipurpose Solvents" in the Consumer Products Model Rule

Dear Mr. Mirzakhali and Mr. Ryan-Bond:

The Solvents Industry Group ("SIG")<sup>1</sup> of the American Chemistry Council is pleased to provide the following comments on the Ozone Transport Commission's ("OTC") draft Model Rule on the Inclusion of "Paint Thinner and Multipurpose Solvents" in the Consumer Products Model Rule ("Model Rule"). The draft Model Rule essentially adopts the California Air Resource Board's (CARB) California Consumer Products regulations for Multi-Purpose Solvents ("MPS") and paint thinners into the OTC's Consumer Products Model Rule ("Model Rule"). SIG requests that the OTC amend their Model Rule as follows:

- SIG urges the OTC to amend their draft Model Rule to include a reactivity-based option, or at least a reactivity-based alternative compliance option.
- If the OTC pursues the proposed mass-based approach, SIG urges the OTC to consider CARB's tier 1 30% VOC by weight limit for their MPS and paint thinner Model Rule, and to exclude CARB's aromatic prohibition.
- Furthermore, if OTC pursues CARB's tier 2 VOC limits as proposed, SIG requests that the Model Rule introduction, notes section or preamble specify that the proposed limits are dependent on the CARB 2012 MPS and paint thinners technology review, and are subject to change based on the CARB review. This clarification could prevent misunderstandings and technical feasibility concerns that may arise if OTC or non-OTC states use the Model Rule drafts to develop regulations.

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<sup>1</sup> SIG represents major U.S. manufacturers of hydrocarbon and oxygenated solvents and was formed to address health, safety, and environmental issues affecting both the producers and users of those materials. Members of SIG include: The Dow Chemical Company, ExxonMobil Chemical Company, Shell Chemical LP, and Eastman Chemical Company.



### **1. OTC should include a reactivity based standard for MPS and Thinners**

Reactivity-based standards more effectively reduce the ozone-forming potential of solvent-based products while providing formulators with greater flexibility to produce products that meet performance and safety specifications.<sup>2</sup> SIG strongly supports the adoption of reactivity-based standards either as the sole compliance option or at least as an alternative compliance option for product categories, including paint thinners and multipurpose solvents.

SIG has long worked with air quality management districts and the U.S. Environmental Protection Agency (“EPA”) on regulations and policies to reduce tropospheric ozone. SIG’s own research and investigations, as well as many other independent studies, including those undertaken by CARB, Dr. William Carter, the University of North Carolina, and Georgia Tech, have consistently concluded that the most efficient and cost effective means of regulating consumer products emissions of VOCs and obtaining meaningful ozone reductions is through reactivity-based regulations. Mass-based approaches, in stark contrast, are outdated, inefficient, needlessly rigid, and potentially counterproductive to ozone reduction.

### **2. OTC Should Not Adopt the 1 Percent Aromatic Compounds by Weight Prohibition for MPS and Paint Thinners**

SIG opposes the proposed 1 percent aromatic compounds by weight prohibition for MPS and paint thinners on several grounds. The provision serves only to make the proposed mass-based approach more onerous and denies formulators the benefits of relative reactivity. There is not adequate justification for the need and scope of the aromatics prohibition. Many other compounds have MIR values that exceed xylene and toluene, yet they would not be subject to this prohibition. It would be arbitrary and capricious for the OTC to include in its Model Rule, without adequate explanation, a ban on the use of certain higher reactive compounds (*i.e.*, aromatics) yet allow other compounds with equivalent or higher MIRs to be used freely.

### **3. The Tier 2 Limit is Currently not Commercially and Technologically Feasible**

The OTC’s Model Rule is based off of CARB’s Tier 2 limits for their MPS and paint thinners regulation are not currently feasible and would compromise product performance, particularly for thinners. CARB staff itself make the case that their tier 2 standards are not commercially and technologically feasible. For example, CARB’s Technical Staff Document states:

For the second tier limit, we believe it has not been demonstrated that products meeting the 3 percent VOC limit will function as paint thinners for all solvent-borne coatings available in commerce. While we are encouraged about the future viability of low VOC thinners, such as soy based products, it has not yet been demonstrated that they are ready for introduction into the market.<sup>3</sup>

CARB staff also state that the “overwhelming majority of existing products that meet the 3 percent VOC limit are formulated with pure acetone. We believe that the 3 percent VOC limit is challenging because

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<sup>2</sup> See William P. L. Carter, *Development of Ozone Reactivity Scales for Volatile Organic Compounds*, 44 J. Air & Waste Mgmt. Ass’n 881 (1994); A. Russell *et al.*, *Urban Ozone Control and Atmospheric Reactivity of Organic Gases*, 269 Science 491 (1995).

<sup>3</sup> Proposed Amendments to the California Consumer Products Regulation, Initial Statement of Reason Executive summary ES-7.



products formulated with pure acetone have not been demonstrated to adequately thin all types of coatings.” To account for this feasibility concern, CARB staff has proposed to undertake a technology assessment in 2012 “to evaluate manufacturer’s progress toward meeting the 3 percent limit.” *Id.* This acknowledgement by CARB demonstrates that the Tier 2 standard is not currently feasible in California and likely not in the OTC states. It is arbitrary and capricious to include a technologically infeasible standard in the Model Rule. Therefore, OTC should not recommend the inclusion of CARB’s tier 2 limits in their Model Rule. OTC should instead include a reactivity-based limit as recommended above and, to the extent that it includes a weight-limit compliance option, include CARB’s 30% VOC by weight tier 1 limit for MPS and paint thinner limit. CARB should wait until after the CARB technology review has been completed to consider any inclusion of CARB’s tier 2 limits. According to CARB’s staff report, the tier 1 limit is anticipated to achieve an 8.4 tons per day reduction of VOC emissions upon its effective date.<sup>4</sup> Therefore, the OTC states should also expect a significant VOC emissions reduction by implementing the 30% by weight VOC limit for MPS and paint thinners. If OTC adopts the CARB tier 2 limits, the Model Rule should clearly state that the limits are currently undergoing a technology review and are subject to change.

### Conclusion

Based on the above comments SIG urges the OTC to amend their draft Model Rule to consider a reactivity-based option for the model rule, or at least a reactivity-based alternative compliance option. If the OTC, however, pursues the CARB regulation’s mass-based approach, SIG urges the OTC to consider CARB’s tier 1 30% VOC by weight limit for their MPS and paint thinner Model Rule, and to exclude CARB’s aromatic prohibition. SIG appreciates the opportunity to work with the OTC on regulations that may impact the solvent industry. If you have any questions, please contact me at (202) 249.6716 or [Leslie\\_Berry@americanchemistry.com](mailto:Leslie_Berry@americanchemistry.com).

Sincerely,

*Leslie Berry*

Leslie Berry  
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Chemical Products and Technology Division

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<sup>4</sup> <http://www.arb.ca.gov/regact/2009/cpmthd310/cpmthdisor.pdf>

