



# The Soap and Detergent Association

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Dorothy Shimer  
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Air Resources Board  
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Subject: *Draft for Public Review Report to the California Legislature: Indoor Air Pollution in California*

Dear Ms. Shimer,

The Soap and Detergent Association (SDA) appreciates the opportunity to submit our comments on the *Draft for Public Review Report to the California Legislature: Indoor Air Pollution in California* pursuant to Health and Safety Code (HSC) (§) 39930 (Assembly Bill 1173, Keeley, 2002).

The Soap and Detergent Association is a 100-member national trade association representing the formulators of soaps, detergents, general household cleaning products, industrial/institutional cleaners, and the companies that supply ingredients and packaging to the formulators. As such, our comments will be limited to the statements on consumer and industrial/institutional products in relation to cleaning products and practices.

## **Comments on Draft Report**

### *General Comments*

SDA acknowledges the obvious hard work and effort that went into the creation of this report. As the home of the U.S. cleaning products industry, we are very dedicated to improved health through both better personal hygiene and environmental cleaning; this includes the improvement of indoor air quality. SDA has proven our commitment by providing our technical expertise to the Air Resources Board (ARB) when working on past issues concerning VOCs.

While the report properly recognizes major indoor air pollutants such as biological agents, radon, tobacco smoke, and carbon monoxide, emphasis is placed on chemical "sources" such as cleaning agents and aerosol sprays. The report also fails to cite that cleaning products mitigate the effects of biological contaminants through proper cleaning practices. SDA's concern is that undue emphasis placed on cleaning agent exposure may deter individuals from using products that have proven to be useful in ridding indoor environments of biological contaminants.

## *Specific Comments*

### **Executive Summary**

#### Table ES-1 -- Sources and Potential Health Effects of Major Indoor Air Pollutants (pg 3)

Table ES-1 has placed cleaning agents in a category as a major indoor source of organic chemicals (pollutants). Beyond the fact that the term “cleaning agents” is ill defined, cleaning products serve as a very minor source of the organic chemicals listed. The information on organic chemicals is also very misleading because it lists several organic chemicals as if they all were ingredients of the “sources” mentioned when, in fact, none of the listed compounds are added as ingredients to most cleaning products. We recommend the removal of cleaning products from “sources”, and insert the words “May include the following...” under Organic Chemicals.

The table also incorrectly lists aerosol sprays as a major source of particulate matter. We recommend the removal of aerosol sprays from this row.

The table identifies biological agents such as bacteria, fungi, house dust mites, animal dander and cockroaches as pollutants. We recommend including viruses in this category, as influenza is listed as a health effect.

We recommend a restructuring of the table to reflect the prioritization based on exposure and adverse impact provided later in the report (Table ES-3, pg 17), once amended.

### **VII. Prioritization of Indoor Sources Based on Exposure and Adverse Impacts**

This section mistakenly omitted biological agents when prioritizing pollutant sources. We recommend their inclusion based on high exposure rates to the agents listed in Table ES-1 (with the inclusion of viruses) in indoor environments and the known adverse effects of these pollutants. It is well documented that proper cleaning practices mitigate the effects of these pollutants through their removal.

#### Table ES-3 – Prioritization of Pollutant Sources for Mitigation (pg 17)

In Table ES-3, “Consumer Products” including household cleansers, stain removers, and detergents are listed as sources of methylene chloride, para-dichlorobenzene, perchloroethylene, terpenes, toluene, benzene, and naphthalene though these chemicals are found in few or no products for use indoors. We recommend the removal of “Consumer Products” from the prioritization list because it over-generalizes. Many of the listed example product categories do not contain the example pollutants. In addition, their exposure rates are low and the report lacks scientific evidence linking these products to the proposed adverse effects.

We also recommend a reformatting of Table ES-3 to reflect the fact that biological agents (to be added to this table) and environmental tobacco smoke should be of the highest priority based on the prioritization scheme recommended (i.e., high exposures in indoor environments and the high risk associated with each).

Table 2.1 -- Sources and Potential Health Effects of Major Indoor Air Pollutants (pg 28)

Please see our comments on Table ES-1 (pg 3).

### **2.3.2.2 Sources and Emissions of VOCs**

The paragraphs on cleaning products in this section (pg 57) contain misleading and erroneous statements. Cleaning products are not formulated with benzene or acetaldehyde, as suggested in the text's description of the study by Akland and Whitaker (2000). We recommend a further literature search by the authors to refute the conclusions of this study. Exposure levels to 2-butoxyethanol were reported in Zhu et al. (2001), but since no reference is made to levels that could cause harm, no conclusions should be drawn about risk. We recommend inserting language to indicate to readers that these exposure levels are extremely low. We also recommend creating a new paragraph at the statement, "Investigators identified numerous other VOCs..." to separate cleaning products from products belonging to other categories of consumer products.

Table 6.1 – Prioritization of Pollutant Sources for Mitigation (pg 124)

Please see our comments on Table ES-3 (pg 17).

### **Options to Mitigate Indoor Air Pollution**

Earlier in the report, we addressed our concern with the omission of biological agents as a priority in the improvement of indoor air quality. Once this is established, we recommend a section addressing the mitigation of these agents through proper cleaning practices. This is especially important in the classroom setting as airborne biological agents are the principal sources involved in school absenteeism for both children and teachers due to asthma and infectious diseases. SDA would like to work with the ARB to re-draft the section to include these recommendations.

### **Summary and Conclusions**

SDA and its member companies appreciate this opportunity to review and comment on the Draft Report. Our comments reflect our continuing efforts to provide the most accurate technical data to date, and protect human health through improved indoor air quality. We recommend that the ARB more thoroughly review biological agents, and revise their list of priorities to reflect the tremendous impact these agents have on indoor air quality and human health.

We look forward to working with the ARB to submit a finalized report to the California Legislature. Please contact us at any time if you have any questions.

Respectfully submitted,

A handwritten signature in black ink that reads "Kathleen Stanton". The signature is written in a cursive, flowing style.

Kathleen Stanton  
Manager, Scientific Affairs

Cc: Richard Bode, Chief Health and Exposure Assessment Branch, Research Division  
Peggy Jenkins, Indoor Exposure Assessment Section, Research Division  
Richard Sedlak, Vice President, Technical and International Affairs, SDA