



**Ballot on Draft Final Revised Standard  
for Industrial and Institutional Cleaners, GS-37**  
April 18, 2008

Green Seal is inviting Registered Stakeholders, through a balloting process, to vote on the Draft Final Revised Standard for Industrial and Institutional Cleaners (4-18-08) for issuance as a final standard. One vote per organization will be accepted, so please coordinate your organization's vote prior to submitting to Green Seal. The organizational names of all voters will be listed in a ballot summary, but not contact information or how you voted. Any comments provided must be with reference to the balloted standard and must be submitted with the ballot. These comments will also be included in the ballot summary, without attribution or identifying phrases. The ballots will be tallied to determine if consensus has been reached. *Further, all comments on the balloted standard will be considered and efforts will be made to ensure there is no sustained opposition on any components of the standard.*

After reviewing the Draft Final Revised Standard for Industrial and Institutional Cleaners, GS-37 (4-18-08), please complete the ballot below.

**Ballots must be received by email at 8:00 PM Eastern/5:00 PM Pacific on May 9, 2008.**

**Completed ballots must be sent electronically to [gs37@greenseal.org](mailto:gs37@greenseal.org)**

**Name** Kathleen Stanton  
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**Do you approve this Draft Final Revised Standard, GS-37 for issuance as a final standard?**

(choose only one of the following, with an 'X' next to chosen response)

\_\_\_\_\_ Affirmative – *With an affirmative response, the voter so approves.*

Negative – *Negative response, the voter does not so approve. Negative votes shall be accompanied by substantive comments that clearly reference the standard. The substantive comments **must** explain the reasons for disapproval.*

\_\_\_\_\_ Abstain – *Abstain indicates no opinion on the matter.*

**Reasons/Comments:**

FORWARD

A. Certification.

We disagree with the statement that the requirements are based on an assessment of the environmental impacts of product manufacture, use, and disposal and reflect information and advice obtained from industry, trade associations, users, government officials, environmental and other public interest organizations, and others with relevant expertise. The Soap



and Detergent Association, a trade organization representing over 100 companies in the cleaning products business, has time and again made comment to the fact that ignoring exposure- and hazard-based risk assessment does not provide environmental or human safety benefit. In fact, this could harm innovation, hampering the design of products which *would* provide a safety benefit. The criteria in the standard are hazard-based only, and the limits or cut-off values are not justified by any meaningful scientific rationale. We are also concerned, more than with the particular criteria, with the manner in which the criteria were included, which arbitrarily modify measures such that they are applied outside of their intended scope. As such, we do not believe that products that comply with this standard would have any environmental benefits when compared to products that do not meet the standard.

To the best of our knowledge, no data exists to show that the Green Seal standards have led to real and measurable environmental improvements. Further, this standard provides a much lower level of safety and environmental protection than exposure and risk-based safety assessment methodologies widely used by the soap and detergent industry to assess the safety of products on a routine basis. Exposure and risk-based assessment often considers many more endpoints, including sorption, wastewater treatment removal, overall exposure (total volumes emitted to the environment and concentration at target sites), long-term toxicity, bioaccumulation, etc. Background materials and examples of these assessments can be viewed at:

[http://cleaning101.com/files/Exposure\\_and\\_Risk\\_Screening\\_Methods\\_for\\_Consumer\\_Product\\_Ingredients.pdf](http://cleaning101.com/files/Exposure_and_Risk_Screening_Methods_for_Consumer_Product_Ingredients.pdf)

<http://www.sdahq.org/AMINEOXIDES/>

<http://www.heraproject.com/Indes.cfm>

<http://www.heraproject.com/RiskAssessment.cfm>

As with other similar GS standards, this one also provides a set of stagnant criteria that do not change in time, and ignores progress in technology and innovation. This proposed revision of the standard can also be a hurdle to innovation, which may potentially lead to more effective cleaning products with real environmental improvements.

#### 2.1/4.4/Appendix A – Definition of Asthma/Ingredients that Cause Asthma

SDA maintains that the term asthmagen, which is included in the asthma definition, should be deleted as it is not a standardized term. Further, as stated by AOEC itself, "...it is not desirable to use AOEC list as a basis for banning substances. As (explained) a number of times, the AOEC's list was designed to be used after the diagnosis of asthma was made or strongly suspected to help clinicians identify potential triggers for asthma. It was not designed to point to substances and say substance X causes asthma, since people then have a natural tendency to take that to mean that in all cases, substance X causes asthma. (Our) list doesn't include any PEL or TLV information or any other detail that would be needed to ban or even seriously limit use of a substance." Further, AOEC's list of asthmagens was misapplied since the list is intended for the neat materials in a production environment, not aqueous mixtures in an institutional environment.

Therefore, the use of this list and its criteria (as outlined in Appendix A) are inappropriate for the standard. We again recommend that Green Seal should recognize and adopt the criteria for the classification and labeling of respiratory sensitizers under the Global Harmonized System of Classification and Labeling of Chemicals (GHS, specifically Chapter 3.4.3). The criteria for classification of respiratory sensitizers have been adopted by the United Nations. These classification criteria can be included by reference into GS-37, product requirement section 4.7, which would allow GS-37 to remain an evergreen document.

#### 2.2/2.16/2.26/4.3 – Carcinogens/Mutagens/Reproductive Toxin/Carcinogens, Mutagens, and Reproductive Toxins

The requirement that the product not contain any ingredients that are known to cause these toxicities without consideration of the risk posed by those ingredients is inappropriate. The Proposition 65 list for reproductive effects includes compounds that have been shown in high dose animal studies to exhibit adverse effects. The list includes substances irrespective of their likely exposure in the real world. In order to put this list into some meaningful context, Proposition 65 calls for the state to develop No Significant Risk Levels (NSRL), which are derived by applying a safety factor of 1,000 to the concentration that



was found to have “no observable effect” in order to provide an “ample margin of safety. Furthermore the warning required by Proposition 65 is only required if there may be exposure above the NSRL, not if a product contains a concentration above this level. Failure to incorporate the risk provisions of Proposition 65 is without precedent and makes use of a list for completely unintended purposes.

#### 2.10/4.9 – Endocrine Disruptors

We do not agree with including chemicals suspected to adversely affect the endocrine system of humans or animals. While the criteria is clear for those chemicals which are determined to adversely affect systems (through internationally validated endocrine activity screens), there is no criteria for suspected chemicals.

We also do not agree with the inclusion of alkylphenol ethoxylates (APEs) and phthalates. If in fact Green Seal took into account an assessment of the environmental impacts of product manufacture, use, and disposal of APEs, they would find data which show that APEs biodegrade under anaerobic conditions and that removal is greater than 99% in sewage treatment plants (Nimrod and Benson 1996; Keith 1997). Therefore, APEs are in the environment at concentrations well below effects concentrations. Because there is low likelihood of injury to the environment, this ingredient should be deleted from the criterion. Phthalates as a category should be removed from the list. There is much scientific evidence that not all phthalates possess properties of concern. We recommend that only those with properties of concern be called out in the standard.

Also, the definition of Endocrine Disruptor in the revised standard is also incomplete in that it relies solely on results of screening tests and does not consider the use of results from more rigorous studies (*e.g.*, chronic toxicity studies, reproductive effects studies, multigenerational studies) that evaluate for adverse endocrine mediated effects. Screening assays are intended to identify substances that should be tested further to determine whether they possess true endocrine disruption properties of concern. They were never intended for the purpose of making product selection decisions. These screening level studies do not determine whether a substance actually causes adverse effects.

#### 2.18 – Neurotoxin

We request that, as with endocrine disruptors and mutagens, testing is set up for this criterion. We also recommend that suspected chemicals not be part of the definition.

#### 4.8 – Systemic Toxins

We disagree with the basis that Green Seal uses to prohibit 2-butoxyethanol. The criterion does not use exposure or risk to arrive at the recommendation that the undiluted product shall not contain 2-butoxyethanol. Looking at the hazard, there is nothing remarkable about the toxicity of 2-butoxyethanol (otherwise known as ethylene glycol butyl ether, EGBE) that suggest restricting this compound over the numerous other compounds that could be used in products that also cause systemic toxicity. The definition of systemic toxin would capture many of the compounds used in formulated products covered by GS-37. Moreover, EGBE is one of the few substances that have ever been delisted by the USEPA as a Hazardous Air Pollutant (HAP) and there is a petition pending at EPA to delist from reporting under the Toxic Release inventory.

#### 4.12 – Volatile Organic Compound Content

We disagree with the proposed method for determining VOC levels. We recommend that Green Seal further consult the rules as applied by California Air Resources Board, which includes exemptions for low vapor pressure and fragrances, EPA and other regulatory bodies in determining acceptable levels and align the proposed standard with those rules.

#### 4.14 – Toxicity to Aquatic Life

We disagree with the application of this criterion. Consideration of aquatic toxicity should only be done in the context of environmental risk assessment. Applying criteria for aquatic toxicity to the product itself fails to consider the environmental fate of aqueous cleaning products which are typically disposed into wastewater treatment systems and, thus, do not directly enter the environment. The ability of a product to exert aquatic toxicity in the environment is a function of many factors beyond just its toxicity, including the mitigation due to fate mechanisms and dilution levels upon discharge into the environment. This criterion is in direct opposition of the statement in the forward indicating that the requirement is based on an assessment of the environmental impacts of manufacture, use and especially in this case, disposal.

#### 4.15 – Bioaccumulating Compounds



This is an independent criterion for the standard in which stakeholders were not given time to evaluate. Even without time to properly evaluate the criterion, the standard does not take into account the fact that cleaning products are usually disposed of down-the-drain, where ingredients are degraded through the wastewater treatment system and do not directly enter the environment. Saying this, while a bioconcentration factor (BCF) less than 100 is considered to indicate a low potential for bioaccumulation, a BCF of 1000 has been considered a threshold for concern, while factors greater than 5000 suggest that a substance is persistent in the environment.

#### 4.17 – Eutrophication

This criterion disregards the scientific assessment of the loading of phosphorus to surface waters which demonstrate that cleaning products are a negligible source of phosphorus to the environment (for example, see Legislative Report: Detailed Assessment of Phosphorus Sources to Minnesota Watersheds, Minnesota Pollution Control Agency, 2004; <http://www.pca.state.mn.us/hot/legislature/reports/phosphorus-report.html>).

#### 4.21 – Optical Brighteners

Prohibiting all members of a class of ingredients without regard to differences within the class inappropriately captures chemicals of varied environmental impacts and creates disincentives to innovation within the class. Also, optical brighteners help address whiteness issues at lower temperatures, and drive consumer use habits significantly toward lower temperatures. Data show that energy and related greenhouse gas savings far outweigh any potential negatives (and none from a safety viewpoint). As such, we do not think that there was an adequate assessment of the environmental impacts of product use (as stated in the Foreword), and do not agree with this criterion.

#### 5.0 – Packaging Requirements

The requirement for rigid containers is inconsistent with the stated spirit of the standard, which is to measure against scientific endpoints. It actually appears to be a misapplication of California's Rigid Plastic Packaging Container Act (RPPC): the act is referenced in GS comments as the model for the criteria. RPPC is intended to ensure Post Consumer Resin (PCR) inclusion in rigid containers, but doesn't require products sold in California to be in rigid containers. The specific problem with a restriction to rigid containers is the loss of novel packaging (flexible pouches, portion control packets, etc) that substantially reduce source resin and package weight. The direct impacts of these are greater raw material and fossil fuel usage with no demonstrable benefit to safety. Packages of any form are tested for burst strength and integrity over time, and many of the non-rigid, source-reduced options exceed the strength of rigid containers. There is also another situation where Green Seal has misapplied regulations and guidelines of other organizations intended for other purposes. RPPC is one example with regard to rigid containers, but also with regard to a PCR increase that was outside of RPPC's requirements.