

# Draft IBEL Strawman

December 4, 2009



## Overview

The Information-Based Environmental Label (IBEL) is an ambitious effort to create the next generation product labeling system designed specifically for the commercial cleaning industry. IBEL will directly benefit purchasers, distributors, and manufacturers by communicating, in a format reminiscent of a food label, important health and environmental information associated with the commercial cleaning products. Because IBEL would work cooperatively with existing labeling programs while directly addressing many of their limitations, IBEL will encourage and reward continuous improvement by innovative manufacturers who produce leadership products.

IBEL is being developed through a robust process designed specifically to leverage the knowledge and wisdom of key thought leaders serving on the project Core Committee. As an initial step, Ecoform has developed the attached Strawman for consideration and discussion by the group. This document will act as an evolving template of the label, capturing the ideas put forward in the various core and working group calls, as well as documenting the decisions made.

## Strawman Description

The strawman is comprised of a list of the suggested categories for collecting and reporting product specific data under IBEL. This list has been developed by reviewing established standards for chemical products currently existing within the commercial cleaning space, as well as other sources and standards outside of the chemical products sector. The document is meant as an initial proposal to stimulate discussion and to highlight potential areas of dispute for future discussion and resolution.

The strawman is presented in the tables below for your consideration. Individual topic areas are organized by category (e.g. biodegradability), with individual reporting metrics proposed for each one. These reporting metrics represent the actual data points that would be reported under the category. Please note, IBEL is not a standard setting exercise, and so individual criteria for pass/fail are not proposed and are not within the scope of this development process. However, it is the intention of this exercise to harmonize, where possible and it makes sense, with existing labels and programs. As such, the initial strawman is heavy on metrics for cleaning products, as they are already well characterized, but will need to eventually cover all products including non-chemical products, sold within the Jan/San marketplace.

## Questions/Tasks

**As a core group member, you are asked to review the following list and offer your thoughts on the content and direction proposed.** Comments on specific data points, proposed metrics, and the addition and subtraction of categories to the strawman are all welcome, as well as any other thoughts or questions you may have. It is the intention of the IBEL development team to work through the details of

individual data points one-by-one in workgroup calls and to report back any recommendations to the core committee for final consideration. A workgroup call schedule will be posted and circulated on upcoming calls and topics.

Finally, in addition to the considerations of individual data points, there are several other overarching issues the Core Committee will be tasked with considering in the near future. For example, which if any of the reporting metrics should be considered mandatory, and which are optional. The decisions will have an effect on the overall program cost and verification structures of the program. These discussions will be queued up for future Core Committee calls.

Please forward any comments to Ecoform at [info@utk.edu](mailto:info@utk.edu). All comments will be summarized and circulated to the group for further discussion as appropriate.

## IBEL Strawman Matrix

### Human Health & Environmental

Category	Reportable IBEL Metric	Details/comments
<b>Asthmagen content</b>	Presence of asthmagen (yes/no)	Green Seal is only current standard prohibiting asthmagens. Asthmagens are identified on AOEC list.
<b>Acute Chemical Concern - Oral</b>	Acute potential – Oral (LD50) Method of determination (test/calc) Test method (if applicable)	Value calculated from formulation disclosure and chemical specific information (i.e. msds tox info) disclosed by manufacturers. Testing must be whole product or can be calc if sufficient data are provided by mfr.
<b>Acute Chemical Concern - Inhalation</b>	Acute potential - Inhalation (LC50) Method of determination (test/calc) Test method (if applicable)	Value calculated from formulation disclosure and chemical specific information (i.e. msds tox info) disclosed by manufacturers. Testing must be whole product or can be calc if sufficient data are provided by mfr.
<b>Acute Chemical Concern - Dermal</b>	Acute potential - Dermal (LD50) Method of determination (test/calc) Test method (if applicable)	Value calculated from formulation disclosure and chemical specific information (i.e. msds tox info) disclosed by manufacturers. Testing must be whole product or can be calc if sufficient data are provided by mfr.
<b>Corrosivity to Skin</b>	Product pH (e.g. 11)	Common approach to all existing standards.
<b>Skin Sensitizer</b>	Product a skin sensitizer – (yes/no) Test method + result	Absence of skin sensitizers confirmed through testing undiluted product using Local lymph node assay (LLNA) methods or other EPA methods for skin sensitization.
<b>Product Absorption via Skin</b>	Product content likely to be absorbed thru skin – (% of product)	Undiluted product w/ potential to absorb through contact with skin. Includes all chemicals flagged on ACGIH Threshold limit value list with skin notation as well as those on DFG list.
<b>Volatile Organic Compound Content</b>	VOC content – (% by wt) Method of determination (test/calc) <b>GreenGuard Certified (yes/no)</b>	Can be determined by additive method of components with Vapor Pressures over 0.1 mm Hg or by using acceptable test method (e.g. modified CARB 310 or SCAQMD), measured as used.
<b>Chronic Chemical Concern - Oral</b>	Chronic potential – Oral (LD50)	Calculated for repeated oral exposures using accepted test methods over lifetime exposures.
<b>Chronic Chemical Concern -</b>	Chronic potential – Inhalation (LC50)	Calculated for gas, vapor, and dust using accepted test

<b>Inhalation</b>	<b>GreenGuard Children and Schools Cert.</b>	methods over lifetime exposures.
<b>Chronic Chemical Concern - Dermal</b>	Chronic potential – Dermal (LD50)	
<b>Phosphorus Eutrophication</b>	Phosphorus content – (% by wt)	Addressed by all relevant standards
<b>Biodegradable Content – Aquatic</b>	Biodegradable content – (% by wt.) Biodegradability classification (e.g. readily)	Differences in testing and level of proof exist between standards for chemical products. As used product can whole product tested, or can be classified if sufficient data exist
<b>Bioaccumulating content</b>	Content likely to bioaccumulate – (% by wt)	Considers product ingredients as well as potential for breakdown products that are likely to bioaccumulate. Only applies to product content that is not deemed readily biodegradable under that category.
<b>Toxicity to Aquatic Life</b>	Aquatic Toxicity (LC50) Species (e.g. fish, daphnia) Test method (method or calc)	Measured on product <i>as used</i> . Values determined through either whole product testing using appropriate methods or calculated from existing data if sufficient..
<b>Product Embodied Energy</b>	Embodied Energy (MJ/unit)	Scope and details to be determined, but typically cradle to gate focused.
<b>Product Embodied Water</b>	Embodied Water (Gal/unit)	Scope and details to be determined, but typically cradle to gate focused.

### Product Performance

Category	Reportable IBEL Metric	Details/comments
<b>Product Performance (specific to product type)</b>	Product performance (test score e.g. 95% soil removal) Test method	Little agreement on test protocols accepted by existing labels, and some applications have no identifiable test protocols. Will need to identify acceptable tests for each product type where available. If not avail, how best to address?
<b>Product Duration</b>	Product warranty period – (time)	For non-chemical product applications
<b>Energy Efficiency</b>	Power consumption – (hp) <b>EPA Energy star 4.0 rated (yes/no)</b>	For electrically powered equipment
<b>Water Efficiency</b>	Water consumption – (gals/cycle) <b>EPA Water Sense rated (yes/no)</b>	For equipment using water. Water sense rating likely will not apply...under investigation.
<b>Product Efficiency - General</b>	TBD	Would like to capture if product prevents or mitigates the use of resources that would otherwise need to be consumed. (e.g. Microfiber eliminates chemical use)

### Additional Product/Packaging

Category	Reportable IBEL Metric	Details/comments
<b>Prohibited Product Content</b>	Presence of listed chemical (yes/no) – per each listed below <ul style="list-style-type: none"> <li>• CMRs</li> <li>• Hvy Metals</li> <li>• Endocrine disruptors</li> <li>• Ozone depletors</li> <li>• Phthalates</li> <li>• Optical brighteners</li> <li>• Chlorinated packaging materials</li> <li>• Others to be defined</li> </ul>	Disclosure of chemical formulation is req'd by all existing labels. Information allows verification of absence of prohibited chemicals. Prohibited chems vary between labels, but included Carcinogens, mutagens, reproductive toxins, etc. Various lists can be consulted as definitive.
<b>Trace contaminants – CMRs (unintentionally added)</b>	Presence of trace contaminants (yes/no/% contaminant)	None of the established labels currently require reporting or testing for trace elements. Data on reportable CA prop 65 chemicals on raw materials used (i.e. MSDS or Mfr Tox info)
<b>Chem Prod Concentrates</b>	Dilution rate (e.g. 128:1 by vol) Avail Controlled prod dilution system (yes/no) Packaging type- (i.e. dispenser, spray bottle)	All labels consider concentrated products, though they do not agree on requirements. Products avail with controlled product dilution systems (i.e. packets/closed dispensers) can prevent exposures
<b>Fragrance</b>	Added fragrance (yes/no) IFA Code of Practice compliant (yes/no) Full disclosure of fragrance ingredients (y/n)	If yes, full disclosure of ingredients required to match existing standards. Applies only to chemical products
<b>Color and dyes</b>	Added color or dye (yes/no) FDA food grade dye (yes/no)	Applies only to chemical products? Does FDA have a formal program to certify these?
<b>Combustibility</b>	Chem product flash point (degree F) Test method	Applies to undiluted product. Consistently applied across standards.
<b>Recycled/Reclaimed Material content – Product and Packaging</b>	Recycled/Reclaimed Product content (%) Recycled/Reclaimed Packaging content (%)	Post consumer material given full credit, Post industrial half credit is typical of other labeling options.
<b>Renewable /Biobased Material content –</b>	Renew/Biobased Product Content (%) Renew/Biobased Packaging content (%)	Determinend for both product and packaging. Applies to both chemical and non-chemical products. Seeking existing

<b>Product and Packaging</b>	<b>USDA Biopreferred Certified (yes/no) FSC Certified (yes/no) SFI Certified, Etc (yes/no)</b>	guidance on qualifications on claiming content,...
<b>EOL -Recyclable content</b>	Recyclable content (%)	Non-chemical products. Includes content that can be readily separated and disposed in local or municipal collection and recycling systems without further processing. Includes type 1 and 2 designation plastics and uncoated paper content?
<b>EOL – Product Takeback</b>	Take back program for product at EOL (yes/no) Program Type (mfr or 3 <sup>rd</sup> party)	Program must be widely and readily accessible through mail-in or distribution point collection systems. Seeking precedent for qualifications...
<b>EOL- Biodegradable/compostable Content – Land disposal</b>	Biodegradable content - % Compostable content - %	Non-chemical products. Will need to strictly define how this would be determined or calculated, and what conditions would be required to consider (e.g. easily separated from non-compostable content). Seeking existing precedent.
<b>Labeling content</b>	TBD	A number of requirements are reasonable, needs to be further parsed out.
<b>Product Certifications Obtained</b>	Selection from list – (yes/no) <ul style="list-style-type: none"> <li>• Green Seal</li> <li>• Ecologo</li> <li>• EPA DfE</li> <li>• GreenGuard</li> <li>• Carpet &amp; Rug Inst.</li> <li>• CSPA</li> <li>• Underwriter labs</li> <li>• Good Housekeeping</li> <li>• Others</li> </ul>	Catalog of certifications obtained. Will be highlighted as part of verification options and will trigger automated entry of data in product registry where possible.

### Corporate Performance Categories

Category	Reportable IBEL Metric	Details/comments
<b>Sustainability Reporting</b>	GRI Compliant Corp Report- Previous year (yes/no)	Details to be developed
<b>Environmental Mgmt program</b>	ISO 14k Certified (yes/no)	Details to be developed

<b>Supply Chain mgmt program</b>	TBD	<a href="#">Details to be developed</a>
<b>Sustainable Energy Use</b>	Generates portion of energy use through on-site sustainable sources (yes/No) Percent of overall use (%) Offsets non-renewable energy use (yes/no) Type of offset (name of program)	<a href="#">Details to be developed</a>