

April, 2011 Revisions to U.S. EPA's DfE Standard for Safer Cleaning Products (SSCP)

In June, 2009, the U.S. Environmental Protection Agency (EPA) published the Design for the Environment (DfE) Standard for Safer Cleaning Products (SSCP). The purpose of the SSCP is to establish minimum requirements for cleaning products that meet the EPA's DfE Safer Product Labeling Program criteria. The SSCP has undergone two revisions: the first in March, 2010, and the second, in April, 2011. This update outlines the April, 2011 revisions. DfE SSCP revisions comprise changes to four sections of the SSCP, and two addendums to the DfE Partnership Agreement (DfE 2011).

Revisions to General Requirements/Ingredient Communication

Timeline for Compliance: Modification of partnership agreement during annual audit; compliance review during the annual audit the following year

- Formulators/partners must disclose the contents of their DfE-recognized products.
- Manufacturers must publicly disclose all intentionally added ingredients in their DfE-labeled products, except for "incidental ingredients."¹
- Ingredients must be disclosed in one of the following locations:
 - on the product label (if not on label, location of the ingredients must be provided)
 - on the formulator's website
 - at a toll-free number
 - on another media approved by DfE
- When preparing ingredient descriptions, formulators must use Chemical Abstract Service (CAS) number and one or more of the following:
 - CAS name
 - Consumer Specialty Products Association (CSPA) Consumer Products Ingredient Dictionary name²
 - International Nomenclature of Cosmetic Ingredients (INCI) name³
 - International Union of Pure and Applied Chemistry (IUPAC) name
- Trade secret-protected ingredients may have a chemical-descriptive name, such as the EPA Premanufacture Notice generic name or the CSPA Dictionary name but the name must be as specific as possible without revealing trade secret information per 40 CFR Part 2, Subpart B
 - Following categories of ingredients are commonly protected as trade secrets:
 - Dyes and colorants
 - Preservatives
- Fragrances will be identified by ingredient listing. Options include:
 - Referencing the IFRA list or a subset of the list
 - Naming the ingredient palette
 - Naming actual ingredients

¹ "Incidental ingredients" – ingredients present at insignificant levels that have no technical or functional effect, e.g. reagents, processing aids, and impurities, per 21 CFR §701.3(I) (DfE 2011).

² Can be ordered in CD Form from <http://www.cspa.org/>

³ Can be ordered in book form or online form from <http://www.personalcarecouncil.org/council-bookstore>

- Formulators must list all intentionally added ingredients
 - Those ingredients present at greater than 1% must be listed in descending order, from highest percentage to lowest
 - Those ingredients present at 1% or less can be listed in any order

Revisions to Product-Level Requirements/Criteria for All Products

Timeline for Compliance: To be evaluated at product partnership renewal

- To ensure a baseline measure of performance, applicants must:
 - make a good faith demonstration that product works effectively
 - submit appropriate test results demonstrating efficacy
- Performance: Applicants must consult DfE or an authorized third-party profiler concerning demonstrating performance for following product categories:
 - Glass cleaners must achieve a rating of at least three for cleaning, streaking, and smearing per CSPA method DCC-09 and DCC-09A, or DfE equivalent method
 - All-purpose cleaners must remove at least 80% of particulate or greasy soils per ASTM G122, DCC-17, CAN/CGSB 2-GP-11 Method 20.3, or DfE equivalent method
 - Carpet/spot cleaners must meet user requirements per CSPA DCC-03 and AATCC Test Method 171-1995, or DfE equivalent method
 - Washroom cleaners must remove at least 75% of soil per ASTM D5343-06, CSPA DCC-16, or DfE equivalent method
 - Degreasers must meet user requirements for soil removal on relevant substrates per ASTM Method G122, CAN/CGSB 2-GP-11, Method 20.3, CSPA DCC-17, or DfE equivalent method
 - Laundry related products:
 - a prewash spotter stain remover must meet user requirements per CSPA DCC-11 or DfE equivalent method
 - a fabric softener must meet user requirements per CSPA DCC-13 or DfE equivalent method
 - a laundry detergent must meet user requirements in CSPA DCC-14 or DfE equivalent method
 - Oven cleaners just meet user requirements per CSPA DCC-12 or DfE equivalent method
 - Hand dish soaps must meet user requirements per CSPA DCC-10 or DfE equivalent method
- Sustainable packaging: Applicants must implement sustainable packaging measures and improve the packaging profile of their recognized products during their partnership with DfE. This will be evaluated at each renewal of a DfE Partnership Agreement.
 - A company must be at least at a 25% level with regard to packaging its labeled products in one of these six sustainability criteria:
 - is sourced, manufactured, transported, and recycled using renewable energy
 - is optimizing the use of renewable or recycled source materials
 - is manufactured using clean production technologies and best practices
 - is made from materials healthful in all probable end-of-life scenarios
 - is physically designed to optimize materials and energy
 - is effectively recovered and used in biological and/or industrial closed-loop cycles

- Packaging materials may not contain the following per the Toxics and Packaging Clearinghouse (TPCH) model legislation:
www.toxicsinpackaging.org/model_legislation.html
 - Heavy metals
 - Bisphenol A (BPA)
 - Specific phthalates: Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP), Butyl benzyl phthalate (BBP), Di-n-pentyl phthalate (DnPP), Di(2-ethylhexyl) phthalate (DEHP), Di-n-octyl phthalate (DnOP), Diisononyl phthalate (DINP), Diisodecyl phthalate (DIDP)
- VOC Content: Product volatile organic compound (VOC) content is restricted based on the most stringent government criteria as prescribed by the Ozone Transport Commission (OTC) and the California Air Resource Board (CARB).
- HAP Ban: No products containing any chemical included on the EPA list of hazardous air pollutants (HAP) or air toxics will be allowed per www.epa.gov/tri/trichemicals/index.htm.
- TRI Ban: No products containing any chemical included on the EPA Toxics Release Inventory chemical list will be allowed except those that meet the DfE safer ingredient criteria per www.epa.gov/tri/trichemicals/index.htm.
- Ignitability: No products can exhibit ignitability characteristics and must have a flash point at or above 60°C (140°F) per 40 CFR 261.21 (a)(1), ASTM E502, or DfE equivalent method.
- Detergent combustibility: Laundry detergents formulated for industrial applications must have information on the product's potential to combust spontaneously.

**Revisions to Product-Level Requirements/Products Designed for Dermal Contact
Timeline for Compliance: Immediately**

- Products whose use entails a prolonged dermal contact must comply with the criteria in the SSCP, along with the following supplemental requirements:
 - a product or any ingredient must be not be categorized as a skin or eye irritant, as demonstrated by testing, clinical studies, or consumer experience per EPA Office of Pesticide Program regulations or Globally Harmonized System of Classification and Labeling of Chemicals (GHS) criteria.
 - a product's pH must be equal to or between 4 and 9.5, unless *in vivo* testing (or validated *in vitro* test methods), or the product's physical-chemical properties (e.g., buffering) demonstrates non-irritation.
 - no ingredients that GHS classifies as skin or respiratory sensitizers are permitted in labeled products per the Food Allergen Labeling and Consumer Protection Act of 2004.
 - a product or any ingredient that is dermally absorbed must have toxicity data that indicates a low hazard concern
 - no ingredients that interact with or perturb the endocrine system will be allowed (notably, those that are associated with reproductive, developmental, carcinogenic, systemic, hormonal, or other effects).
 - products with residuals of concern that can't be eliminated must be restricted to less than 0.01% by weight or 100 ppm in the formulation
 - any product colorants must appear on the FDA list for use in the U.S. and comply with FDA regulations on appropriate conditions for use per 21 CFR Parts 70-82.
 - any product fragrance must comply with the DfE Criteria for Fragrances per www.epa.gov/dfe/pubs/projects/gfcp/index.htm#fragrances.

- Products should not contain ingredients on lists of chemicals prohibited for use in cosmetics: the U.S. FDA Cosmetics list per 21 CFR 700.11, the European Union Cosmetic Directive – Annex II, the Health Canada “Hot List”, and the Cosmetic Ingredient Review “Unsafe for Use” list per www.cir-safety.org.

Revisions to Component-Specific Requirements/Enzymes and Enzyme Stabilizers

Timeline for Compliance: Immediately

- Enzymes and enzyme stabilizers shall meet general requirements per www.epa.gov/dfe/pubs/projects/gfcp/index.htm#master.
- Only liquid enzyme formulations or low-dust granulated enzyme formulations will be accepted.
- Best efforts to ensure a safe workplace must be demonstrated through dust control, allergy surveillance programs, and use of personal protective equipment.
- Cleaning products enzymes’ technical names and catalytic activities, as well as the production organisms’ genus and species must be provided to DfE.
- Although DfE encourages safer alternative stabilizers, boric acid may be used as a DfE-acceptable protease enzyme stabilizer.

Revisions to Partnership Agreement

- These changes by the DfE to the SSCP are all contained in the following addendum additions to the Partnership Agreement:
 - Section A.15 – Ingredient Communication
 - Section A.16 – Packaging

Summary of SSCP Revisions (DfE 2011)	
DfE Standard for Safer Cleaning Products	Subject
3.8 General Requirements/Ingredient Communication	<ul style="list-style-type: none"> • Ingredients <ul style="list-style-type: none"> - 3.8.1 All intentionally added ingredients must be disclosed (unless protected by trade secret) • Labeling <ul style="list-style-type: none"> - 3.8.2 Ingredients must be disclosed on the product label or formulator must provide location of ingredients on label • Description <ul style="list-style-type: none"> - 3.8.3 CAS number must be listed along with CAS name, CSPA Consumer Products Ingredients Dictionary name, INCI name, or IUPAC name - 3.8.3 Trade secret protected ingredients may use chemical-descriptive name as specific as possible without revealing trade secret information, including dyes and colorants, fragrances, and preservatives (see Standard for specific detail) • Listing order <ul style="list-style-type: none"> - 3.8.4 All intentionally added ingredients must be listed. For ingredients that are greater than 1%, list ingredients in descending order with ingredient with highest percentage listed first. For ingredients that are at or less than 1%, list in any order.

<p>4.2 Product-Level Requirements/Criteria for All Products</p>	<ul style="list-style-type: none"> • Performance <ul style="list-style-type: none"> - 4.2.1 Applicants must make good faith demonstration that product works effectively and submit appropriate test results to DfE or authorized third-party profiler • Requirements <ul style="list-style-type: none"> - 4.2.1.1-4.2.1.8 Performance requirements must be submitted for the following product categories: glass cleaners, all-purpose cleaners, carpet/spot cleaners, washroom cleaners, degreasers, laundry related products, oven cleaners, and hand dish soaps • Packaging (verified at each renewal of DfE Partnership Agreement) <ul style="list-style-type: none"> - 4.2.6 Applicants must implement sustainable packaging measures and improve the packaging profile of their recognized products - 4.2.6 Packaging must use 25% level in one of the six sustainability criteria - 4.2.6 Packaging may not contain heavy metals, BPA, or specific phthalates DPB, DIPB, BBP, DnPP, DEHP, DnOP, DINP, or DIDP • VOCs, HAPs, and TRI toxic chemicals <ul style="list-style-type: none"> - 4.2.7.1 VOC content is restricted based on the most stringent government criteria - 4.2.7.2 HAP content is not allowed - 4.2.7.3 TRI toxic chemical content is not allowed except those that meet DfE safer ingredient criteria • Flammability <ul style="list-style-type: none"> - 4.2.8 No products can exhibit ignitability characteristics and must have a flash point at or above 60°C (140°F) - 4.2.8.1 Laundry detergents formulated for industrial applications must have information on the product's potential to combust spontaneously
<p>4.5 Product-Level Requirements/Products Designed for Dermal Contact</p>	<ul style="list-style-type: none"> • Compliance <ul style="list-style-type: none"> - 4.5.1-4.5.9 Products using prolonged dermal contact must comply with supplemental requirements dealing with: non-irritants, pH level, allergens and sensitizers, dermal absorption, potential endocrine effects, residuals of concern, colorants, fragrances, and ingredients on prohibited lists
<p>5.11 Component-Specific Requirements/Enzymes and Enzymes Stabilizers</p>	<ul style="list-style-type: none"> • Requirements <ul style="list-style-type: none"> - 5.11 Must meet Section 5.2 general requirements; only liquid or low-dust granulated enzyme formulations accepted; must ensure safe workplace through dust control, allergy surveillance programs, and use of personal protective equipment; cleaning products enzymes' technical names and catalytic activities, and production organisms' genus species provided to DfE; use of boric acid may be used only if safer alternative stabilizers not used
<p>A.15 Partnership Agreement/Ingredient Communication</p>	<ul style="list-style-type: none"> • Addendum added to Partnership Agreement
<p>A.16 Partnership Agreement/Packaging</p>	<ul style="list-style-type: none"> • Addendum added to Partnership Agreement

REFERENCES

Design for the Environment (DfE). 2011. DfE Standard for Safer Cleaning Products (SSCP). Version dated April, 2011.

http://www.epa.gov/dfe/pubs/projects/gfcp/standard_for_safer_products_revisions_updated_4-14-2011.pdf