

GREEN SEAL CERTIFICATION CHECKLIST

Standard Number: GS-44 First Edition (May 7, 2009)

Standard Title: Soaps, Cleansers and Shower Products

A. MANUFACTURER AND PRODUCT INFORMATION:

1. Manufacturer's Name: _____

2. Product Name(s): _____

3. Product Type(s), Style(s), or Model(s): _____

4. Manufacturer Contact & Title: _____

5. Telephone No.: _____

6. Fax No.: _____

7. Facility Name: _____

8. Address: _____

9. State/Province: _____ 10. Zip/Postal Code: _____

11. Country: _____

B. REPRESENTATIVE INFORMATION:

1. Name: _____

2. Signature: _____ 3. Visit Date: _____

4. Time in: _____ 5. Time out: _____

Notes: _____

REQUIREMENTS	Y	N	NA	NOTES
1 Organization				
1.1 Have the manufacturer provide an organization chart. The chart must describe the key relationships between: <ul style="list-style-type: none"> -product development -production -quality control -environment and safety 				
1.2 Have the manufacturer provide information on: <ul style="list-style-type: none"> -number of employees at this facility -facility size (in square feet or square meters) -production capacity 				
1.3 Have the manufacturer provide a manufacturing flow chart, including descriptions of major equipment used. <p>NOTE: Green Seal requires written notifications from manufacturers regarding any design or production changes to the certified product or products.</p>				
2 Regulatory Compliance				
2.1 Have the manufacturer provide a statement that it has not had any significant violations of any applicable environmental regulations related to the product in the past 12 months.				
2.2 Have the manufacturer identify the environmental compliance personnel and/or provide description of environmental compliance program.				
3.0 Category and Product Definition				
3.1 Have the manufacturer provide descriptions of the products submitted for Green Seal evaluation, including the following information (as applicable): <ul style="list-style-type: none"> -product name -brand name -product code -product description -grade -color -size. 				

REQUIREMENTS	Y	N	NA	NOTES
4.0 Product Specific Performance Requirements				
4.1 The product shall perform as well as or better than a conventional, nationally-recognized product in its category and at equivalent concentration using an objective, scientifically-validated method conducted under controlled and reproducible laboratory conditions. The testing protocol shall include, at a minimum: cleaning ability, lathering/rinsing, and skin or hair condition after use. A standard soil shall be used and conclusions shall be derived from at least six separate samples. All results, a summary of conclusions, and a description of how panelists were chosen shall be submitted.				
5.0 Product Specific Environmental Requirements				
<p>5.1 Acute Toxicity. The <i>undiluted</i> product shall not be toxic to humans. A product is considered toxic if any of the following criteria apply:</p> <p>Oral lethal dose (LD_{50}) $\leq 5,000$ mg/kg</p> <p>Inhalation lethal concentration (LC_{50}) ≤ 20 mg/L at 1 hr</p> <p>Dermal lethal dose (LD_{50}) $\leq 2,000$ mg/kg</p> <p>Toxicity shall be measured on the product as a whole. Alternatively, a mixture need not be tested if existing toxicity information demonstrates that each of the ingredients complies. The toxicity testing procedures should meet the requirements put forth by the OECD Guidelines for Testing of Chemicals. These protocols include Acute Oral Toxicity Test (TG 401), Acute Inhalation Toxicity Test (TG 403), and Acute Dermal Toxicity Test (TG 402).</p> <p>Testing is not required for any ingredient for which sufficient information exists. To demonstrate compliance with this requirement. It is assumed that the toxicity of the individual ingredients is additive. The toxicity values are adjusted by the weight of the ingredient in the</p>				

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<p>prefers that an <i>in vitro</i> test validated by the Interagency Coordinating Committee on the Validation of Alternative Methods or the European Centre for the Validation of Alternative Methods be used. Green Seal will also accept the results of other peer-reviewed or standard <i>in vitro</i> or <i>in vivo</i> test methods demonstrating that the product mixture is not corrosive. Testing is not required for any ingredient for which sufficient information exists.</p>				
<p>5.4 Skin Sensitization. The <i>undiluted</i> product shall not be a skin sensitizer, as tested by the LLNA or following EPA test guidelines for skin sensitization (OECD Guideline 429, OPPTS 870.2600). The results of other standard test methods, such as the guinea pig maximization test (OECD Guideline 406) or the Buehler test (OECD 406), will be accepted as proof that the product in its most concentrated form is not a skin sensitizer when data from LLNA tests are not available. Any new product or ingredient testing should use the LLNA. Testing is not required for any ingredient for which sufficient information exists.</p>				
<p>5.5 Skin Absorption. The <i>undiluted</i> product shall not contain ingredients, present at greater than or equal to 1% in the product, that are listed on the ACGIH TLV carrying a skin notation, or substances that are listed on the DFG MAK list with a skin absorption H notation. Further, the product shall not contain ingredients that sum to 1% in the formula that are listed on ACGIH or DFG with the same target organ..</p>				
<p>5.6 Components that Cause Asthma. The <i>undiluted</i> product shall not contain any components that have been identified as asthmagens.</p>				
<p>5.7 Ozone Depleting Compounds. The <i>undiluted</i> product shall not contain any ingredients that are ozone-depleting compounds.</p>				
<p>5.8 Volatile Organic Compound Content. The <i>undiluted</i> product shall not contribute</p>				

REQUIREMENTS	Y	N	NA	NOTES
<p>significantly to the production of photochemical smog, tropospheric ozone, or poor indoor-air quality by containing no more than 1% of VOC content. The VOC content shall be determined either by summing the percent by weight contribution from all components of the product that have a vapor pressure of greater than 0.1 mm mercury at standard conditions or by the California Air Resources Board Method 310 modified to not allow the exemption for fragrances specified under Method 310.</p>				
<p>5.9 Chronic Inhalation Toxicity. The product <i>as used</i> shall not contain ingredients with a vapor pressure above 1 mm mercury at ambient conditions (1 atm pressure and 20-25° C) that cause chronic inhalation toxicity as evidenced by either of the following:</p> <ul style="list-style-type: none"> • Listed by the European Chemicals Bureau as R48/23: Danger of serious damage to health by prolonged exposure through inhalation. • Classified as producing significant toxic effects in mammals from repeated inhalation exposure at or below 1.0 mg/L as a vapor according to OECD Harmonized Integrated Classification System for Human Health and Environmental Hazards of Chemical Substances and Mixtures. For the purposes of this standard, significant toxic effects in mammals from repeated inhalation exposure at or below 1.0 mg/L as a vapor shall be established by a NOAEL, based on a test duration of 90 days at 6 hours per day; values from other exposure regimes shall be estimated (extrapolated) per the principles of Haber's rule. In lieu of a NOAEL, the LOAEL can be used with a ten-fold safety factor (i.e., LOAEL/10). 				
<p>5.10 Toxicity to Aquatic Life. The product <i>as used</i> shall not be toxic to aquatic life. A compound is considered not toxic to aquatic life if it meets one or more of the following criteria:</p>				

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<p>Acute LC₅₀ for algae, daphnia, or fish ≥100 mg/L For purposes of demonstrating compliance with this requirement, aquatic toxicity testing is not required if sufficient aquatic toxicity data exist for each of the product's ingredients to demonstrate that the product mixture complies, using a weighted average approach (as in section 4.1). Aquatic toxicity tests shall follow the appropriate protocols in ISO 7346-2 for fish, OECD test guidance 203 for fish, OECD test guidance 201 for algae, and OECD test guidance 202 for daphnia. Alternatively, the product shall not be toxic to aquatic life defined as IC₅₀ >1000 mg/L as measured by whole formulation short-term sensitive toxicity test performed on the bacteria <i>Photobacterium phosphoreum</i>. Aquatic toxicity shall be measured by one of the following test methods: <i>Biological Test Method: Toxicity Test Using Luminescent Bacteria (Photobacterium phosphoreum)</i>, Report EPS 1/RM/24, November 1992, Environment Canada, ASTM D5660-96 or ISO 11348.</p>				
<p>5.11 Bioaccumulating Compounds. The product <i>as used</i> shall not contain any ingredients that bioaccumulate or that form degradation products that bioaccumulate. A chemical is considered to bioaccumulate when it has a BCF greater than 100 (or log BCF >2) as determined by ASTM E-1022-94(2007) Standard Guide for Conducting Bioconcentration test with Fishes and Saltwater Bivalve Mollusks or OECD 305 Bioconcentration: Flow-through Fish Test. If the chemical meets the requirement for biodegradability, 4.12, it may be considered to not bioaccumulate. Testing is not required for any ingredient for which sufficient information exists. If no test results are available, a chemical with a log octanol/water partition coefficient log Kow > 3 may be considered to bioaccumulate.</p>				

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<p>5.12 Aquatic Biodegradability. Each of the individual organic ingredients in the product <i>as used</i> shall exhibit ready biodegradability in accordance with the OECD definition. Biodegradability shall be measured according to any of the following methods: ISO 7827, 9439, 10707, 10708, 9408, 14593; OECD Methods 301A – F; or OECD 310. Specifically, within a 28-day test, the ingredient shall meet one of the following criteria within 10 days of the time when biodegradation first reaches 10%:</p> <ul style="list-style-type: none"> • Removal of DOC > 70% • BOD >60% • % of BOD of ThOD > 60% • % CO₂ evolution of theoretical > 60% <p>Per OECD guidance the 10-day window requirement does not apply to structurally-related surfactant homologues. For organic ingredients that do not exhibit ready biodegradability in these tests the manufacturer may demonstrate biodegradability in sewage treatment plants using the Coupled Units Test found in OECD 303A by demonstrating DOC removal > 90%. An exception shall be made for natural or naturally-derived components that do not exhibit ready biodegradability if it does not have acute aquatic toxicity <100 mg/L (according to 4.10), does not have a chronic toxicity <100 mg/L (tested according to OECD 210, 211, or 201), is not bioaccumulating (4.11), and exhibits biodegradation rates above 70% (measured as BOC, DOC, or COD), per ISO test methods 9887 or 9888; or OECD 302A, B, or C. Testing is not required for any ingredient for which sufficient information exists concerning its biodegradability, either in peer-reviewed literature or databases.</p>				
<p>5.13 Eutrophication. The <i>undiluted</i> product shall not contain phosphorus-containing ingredients.</p>				
<p>5.14 Prohibited Components. The <i>undiluted</i> product shall not contain the</p>				

REQUIREMENTS	Y	N	NA	NOTES
following components: <ul style="list-style-type: none"> • 2-butoxyethanol • Alkylphenol ethoxylates • Butylated hydroxytoluene • Ethoxylated chemicals • Ethylene diaminetetra-acetic acid or any of its salts • Formaldehyde donors • Heavy metals including, lead, hexavalent chromium, or selenium both in the elemental form or compounds • Halogenated organic solvents • Methylidibromo glutaronitrile • Monoethanolamine, Diethanolamine, and Triethanolamine alone or in compounds • Nitro-musks • Parabens • Phthalates • Polycyclic musks 				
5.15 Fragrances. All fragrance components shall be disclosed to the certifying body. Any fragrances used shall have been produced and handled following the code of practice of the International Fragrance Association. The product shall declare any fragrances on the product label in the ingredient line (see 6.2 and 6.5).				
5.16 Preservatives. The use of preservatives for purposes other than preservation of the product is not allowed. Documentation must be provided to demonstrate the dosage necessary to preserve the product.				
5.17 Color Components. [Reserved]				
5.18 Nanoscale Components. [Reserved]				
5.19 Optical Brighteners. The <i>undiluted</i> product shall not contain any ingredients that are optical brighteners.				
5.20 Animal Testing. To discourage animal testing, the results of past peer reviewed or standard tests demonstrating compliance with a criterion will be accepted. A mixture need not be tested if existing information demonstrates that each of the ingredients complies with a criterion. Additionally, non-animal (in-vitro) test results, modeling data, or data				

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from structural analogs may be accepted, provided that the methods are peer-reviewed, applicable, and the manufacturer provides rationale for the particular method.				
6.0 PACKAGING REQUIREMENTS				
6.1 Primary Packaging.				
6.1.1 Source Reduction in Primary Package. The primary package shall be a source-reduced package or recyclable and contain at least 25% post-consumer material or demonstrate that efforts were made to use the maximum available post-consumer material in the package.				
6.1.2 Concentrated Product Packaging. Concentrates are prohibited from being packaged in ready-to-use forms, including but not limited to pump-dispenser bottles.				
6.1.3 Heavy Metal Restrictions. Heavy metals, including lead, mercury, cadmium, and hexavalent chromium, shall not be intentionally introduced. Further, the sum of the concentration levels of these metals present shall not exceed 100 parts per million by weight (0.01%); an exception is allowed for refillable packages or packages that would not exceed this maximum level but for the addition of recovered materials. Further, intentional introduction does not include the use of one of the metals as a processing aid or intermediate to impart certain chemical or physical changes during manufacturing, where the incidental retention of a residual of that metal in the final packaging or packaging component is not desired or deliberate, if the final packaging or packaging component complies with the incidental concentration restrictions of 100 ppm.				
6.1.4 Other Restrictions. Phthalates, Bisphenol A, and chlorinated packaging material are prohibited from being intentionally introduced; an exception is allowed for packages that would not have these added compounds but for the addition of recovered material.				
6.2 Secondary Packaging. Secondary				

REQUIREMENTS	Y	N	NA	NOTES
packaging shall only be used for concentrates. An exception may be made for packaging of multiple units when up to one of the units is a ready-to-use form, including but not limited to pump-dispenser bottles, and total packaging (primary plus secondary) is a reduction in packaging material use.				
7.0 COMMUNICATION AND LABELING REQUIREMENTS				
7.1 Antimicrobial Claims. The product shall make no antibacterial, disinfecting, antiseptic, or sanitizing product claims.				
7.2 Ingredient Line. The product shall list the product components using the naming convention of the INCI in order of predominance. The general term ‘fragrance’ may be used for fragrance components. The product shall also follow any additional labeling regulations that apply to that product.				
7.3 Organic Claims. Organic claims must be supported with documentation that they meet the USDA National Organic Program or meet the NSF 305 standard.				
7.4 Natural and Biobased Claims. Only the following natural and biobased, or related, claims are allowed when the product meets the criteria outlined: <ul style="list-style-type: none"> • “100 percent Natural,” “All Natural,” “100 percent Biobased,” or “All Biobased” shall only contain natural or biobased components, respectively, with no synthetic, petroleum, silicone, or artificial components. An exception is permitted for lye used to produce soap. • "Natural" or “Biobased” products shall contain 95% natural, naturally-derived, or biobased components, respectively, with no synthetic, petroleum, silicone, or artificial components. • Claims on specific product ingredients being “natural” or “biobased” may be permitted if it is a natural or biobased ingredient. 				
7.5 Fragrance and Allergen Labeling. The product label shall declare, separate from the ingredient line, if a fragrance has been				

REQUIREMENTS	Y	N	NA	NOTES
added or if no fragrance has been added and if the product contains any allergen ingredients.				
7.6 Consumer Communication. The product ingredient line (6.2) shall be made available to consumers in an easily accessible means besides the product package, such as the company website.				
7.7 Use Labeling. The product shall be accompanied by detailed instructions for proper use to maximize product performance and minimize waste.				
7.8 Disposal Labeling. The label must include proper disposal instructions including clear package recycling instructions, if applicable.				
7.8.1 Plastic Labeling. If plastic, the packaging must be clearly marked with the appropriate Society of the Plastics Industry symbol to identify the type of plastic for recycling and appropriate qualification of recyclability as referenced in 5.1.1 such as “may be recyclable, see if accepted by your local program” or “only a few communities accept this package for recycling, check with your local program.”				
7.9 Certification Mark. The Green Seal Certification Mark may appear on the packaging and may appear on the product itself. The Green Seal Certification mark shall not be used in conjunction with any modifying terms, phrases, or graphic images that might mislead consumers as to the extent or nature of the certification.				
7.10 Statement of Basis for Certification. Whenever the Green Seal certification mark appears on a package, the package shall contain a description of the basis for certification. The description shall be in a location, style, and typeface that are easily readable. Unless otherwise approved in writing by Green Seal, the description shall read as follows: This product meets the Green Seal™ environmental standard for soaps, cleansers, and shower products based on its low impact on aquatic life, minimized				

REQUIREMENTS	Y	N	NA	NOTES
use of hazardous substances, and increased health protection.				
8 Quality Control/Assurance				
8.1 Purchasing and receiving: -are new sources of materials or parts evaluated to ensure compliance with specifications or purchasing documents? -does the manufacturer have a documented method of ensuring that sources of materials or parts continue to comply with specifications?				
8.2 Manufacturing: -is there documentation describing production methods and materials used? -are records maintained to show that products are made in accordance with documented methods and materials?				
8.3 Finished product testing: -are products identified by lot or batch numbers? -are products inspected, tested, or otherwise evaluated to ensure proper performance? -is measuring, inspection, and test equipment (equipment used in the evaluation of products submitted for certification only) calibrated? -is the method of evaluation documented?				
8.4 Have the manufacturer provide a copy (or relevant sections) of its quality assurance/control manual.				