



**THE ORIGINAL GREEN
SEAL OF APPROVAL
SINCE 1989**

GS-51 Green Seal™ Standard for Laundry Care Products for Industrial and Institutional Use, First Edition

A Guide for Leadership in Laundry Care Products

Green Seal offers this standard as a comprehensive benchmark for sustainable laundry care products, providing manufacturers the opportunity to be recognized as leaders in the industry, and allowing purchasers to identify safer, environmentally preferable laundry products.

Traditional laundry care products are significant contributors to water pollution and can harm human health. Many chemicals found in these products may be hazardous to human and aquatic life, and both manufacturers and users risk exposure to harmful chemicals through inhalation and skin contact. These products often contain volatile organic compounds (VOCs), chemicals that can have short and long-term health effects, and contribute to the ozone problem.



Scope of GS-51

This standard applies to over 20 categories of laundry care products used for laundry and dry cleaning in industrial and institutional (I&I) settings to clean, remove stains, and/or otherwise treat the softness, static, or wrinkle characteristics of I&I laundry. The standard does not address equipment, equipment maintenance, or processes (e.g. ozone generation/use or dry cleaning solvents).

Products that can be certified to GS-51 include:

Cleaning Products	Laundry Additives	Fabric Care Products
<ul style="list-style-type: none"> • Laundry prewash • Laundry detergents (complete/built detergent and multi-component systems) • Home-style detergents (used in a home-style machine in the industrial and institutional market) • Spot removers • Stain removers • Bleaches • Antimicrobial pesticide products used in I&I laundries for health care and food service 	<ul style="list-style-type: none"> • Builders (water conditioners) • Alkali boosters • Laundry sours • Antichlor products 	<ul style="list-style-type: none"> • Fabric softeners (liquids & single-use dryer sheets) • Anti-static products • Anti-wrinkle products • Fabric protectants • Fabric refreshers • Starch • Sizing • Fabric finish

For information on Green Seal's laundry product standard for household use see greenseal.org/GS48.aspx.

**SUSTAINABILITY
LEADERSHIP STANDARDS**



**INDEPENDENT
THIRD-PARTY
CERTIFICATION**



**SUSTAINABILITY
RESEARCH &
LIFE CYCLE ANALYSIS**



**TECHNICAL ASSISTANCE
FOR INSTITUTIONAL
GREENING**



Key Areas Addressed

GS-51 protects water and air quality, human health, and the environment by requiring certified detergents and softeners to be sold in concentrated form, prohibiting harmful chemicals, specifying sustainable packaging, and limiting VOC content.

Performance Requirements

The standard ensures that certified laundry care products deliver satisfactory value in terms of performance so each type of product must prove that it performs as well as a comparable benchmark product. The evaluations may include: cleaning, general detergency, stain removal, color fastness, fabric appearance, softness, water absorbency, and static control.

Health and Environmental Requirements

GS-51 enhances the safety of laundry care products by prohibiting a comprehensive list of harmful chemicals, including heavy metals, phthalates, formaldehyde donors, carcinogens, mutagens, reproductive toxins, triclosan, and ozone depleting compounds. Water quality is protected by setting limits on phosphorus content (to prevent eutrophication), and on environmental toxicity and bioaccumulation (to prevent harmful chemicals accumulating in the waterways). The VOC content is limited in order to prevent ground level ozone air pollution and to protect the health of users.

Concentration and Compaction

Certified laundry detergents, both liquid and solid, as well as fabric softeners must be sold in concentrated (2X) or ultra-concentrated (4X) forms. This requirement reduces the volume of product sold, thereby minimizing transportation and storage needs, leading to fewer trucks on the road, savings in fuel, and reductions in greenhouse gas emissions. Less packaging is needed, saving raw materials and reducing the waste stream.

Packaging Requirements

GS-51 requires that the primary package contain at least 20% less material than an equivalent package; be recyclable and contain 25% post-consumer material; or be a refillable package with an effective take-back program. Harmful compounds, such as phthalates, bisphenol A, and chlorinated packaging material must not be added intentionally.

Training and Labeling Requirements

The product manufacturer, its distributor, or a third party must offer specific training or training materials on the proper use of the certified product. Labeling on the package, and the training materials must contain clear instructions for the dilution required for the product before use (if relevant), dosing directions for various water hardness conditions, and prominent directions for use, precautions, and recommendations for the use of personal protective equipment. The product label must include English and another language, or English and a graphical representation or icons.

**This is only a summary of GS-51. The full standard is available
for free viewing and downloading at: <http://www.greenseal.org/GS51.aspx>.**

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