

NOTICE OF ISSUANCE

EXEMPTION OF TITANIUM DIOXIDE IN ENZYME-BASED CLEANING PRODUCTS

September 12, 2019



Green Seal has issued new editions of standards that now include a conditional exemption for titanium dioxide.

- GS-8, Edition 5.3, Standard for Cleaning Products for Household Use
- GS-37, Edition 7.4, Standard for Cleaning Products for Industrial and Institutional Use
- GS-48, Edition 1.4, Standard for Laundry Care Products for Household Use
- GS-51, Edition 1.5, Standard for Laundry Care Products for Industrial and Institutional Use
- GS-52, Edition 2.4, Standard for Specialty Cleaning Products for Household Use
- GS-53, Edition 2.5, Standard for Specialty Cleaning Products for Industrial and Institutional Use

Overview of Exemption:

Titanium dioxide is added as a colorant in order to whiten and brighten many types of products such as food, paints, and personal care products. In enzyme-based cleaning products, manufacturers include titanium dioxide because certain enzymes can appear beige. The compound is prohibited in cleaning products because it is classified as a “Group 2” carcinogen (“Possibly carcinogenic”) by the International Agency for Research on Cancer (IARC). The classification is specific only to the inhalation exposure route, i.e., this compound is not considered a hazard when it is ingested or applied to the skin. To align with the health protections set out by the State of California in Proposition 65, Green Seal published a proposal in April 2019 that included new requirements to safely allow titanium dioxide as an ingredient in these products. The conditions of this exemption are designed to ensure that titanium dioxide particles will not become airborne, therefore will not be inhaled, therefore eliminating health risks to product users.

Summary of Changes to Standards:

An exemption for titanium dioxide is now included in all standards that cover enzyme-based cleaning products. The exemption includes following conditions: **Condition 1:** Titanium dioxide is now allowed when it is present only due to the use of enzymes. There are no other conditions for products sold as liquids, gels, and foams. **Condition 2:** For products sold in solid form (e.g., powders, bars, tablets), titanium dioxide must be bound within the product or enzyme matrix or bonded to other ingredients.

The following standard sections underwent substantive updates:

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| • GS-8, Criteria 3.2, Annex C – Enzymes | • GS-51, Criteria 3.5, Annex E – Enzymes |
| • GS-37, Criteria 3.3, Annex D – Enzymes | • GS-52, Criteria 3.5, Annex C – Enzymes |
| • GS-48, Criteria 3.5, Annex C – Enzymes | • GS-53, Criteria 3.5, Annex D – Enzyme |

Standard Revision Documents:

The two Exemption Proposals and Green Seal’s Responses to Comments can be found on our website.

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About Green Seal

Green Seal is the leading US eco-certifier. Our standards, developed within a lifecycle framework, are the results of active dialogues with experts from industry, end users, and public interest groups. Over the past three decades, Green Seal’s environmental leadership standards have fueled the green transformation of major industries across the globe.