



UL 2777

Standard for Sustainability for Hard Floor Care Products

Standard for Sustainability for Hard Floor Care Products, UL 2777

First Edition, Dated November 9, 2011

Summary of Topics

This revision to UL 2777 includes the following:

Revisions are made to incorporate additional requirements from the original EcoLogo (CCD) 147: Sustainability for Hard Floor Care Products.

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First Edition

November 9, 2011

This UL Standard for Safety consists of the First Edition including revisions through May 4, 2016.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <http://csds.ul.com>.

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INTRODUCTION

1 General

1.1 This Standard is designed to support a continuing effort to improve and/or maintain environmental quality by reducing energy and materials consumption and by minimizing the impacts of pollution generated by the production, use and disposal of goods and services.

1.2 Floor care product technology is increasingly producing longer lasting finishes (e.g., high traffic glossy institutional finishes lasting for 18 months to 3 years before they need to be stripped), yet disposal of floor care products to sewage systems and eventually to aquatic ecosystems remains an important area for environmental leadership. During use, opportunities for environmental leadership include limits on volatile content and restrictions on recognized toxins. There are upstream impacts associated with manufacturing choices (e.g., use of toxic intermediates such as isocyanate to produce polymers or use of ethylene oxide to produce stripping agents). Packaging decisions can reduce emissions and waste.

1.3 Based on a review of currently available life cycle information, the requirements of this Standard will produce an environmental benefit through the following:

- a) Limited toxicity for aquatic and other organisms;
- b) Greater biodegradation;
- c) Lower potential for bioaccumulation;
- d) Reduction in eutrophication of water bodies;
- e) Reduction in ground-level ozone-formation;
- f) Reduction in the depletion of stratospheric ozone;
- g) Limited waste creation; and
- h) Reduction in resource use.

1.4 A typical maintenance program for institutional hard floors may include the use of a sealer, followed by several layers of finish, regular cleaning, buffing or burnishing, weekly use of a restorer to restore gloss and a thin coating to the floor, occasional refinishing, stripping of accumulated layers and finishing again. Depending on the type of facility, and the quality of the finish, the frequency of stripping and refinishing may range from 6 months to several years. During stripping layers of finish are removed and typically rinsed into the sewage systems.

1.5 Floor finish products may be formulated with zinc or other metals to improve bonding between polymers. These products have historically lasted longer and been easier to remove than alternatives, however, municipal bylaws may limit the amount of zinc permitted in the sewage system, and "metal free" finishes are increasingly common.

1.6 Typical household use of floor care products involves less stripping of finishes and waxes and more use of combination cleaners and restorers.

1.7 Most institutional products are formulated for use on floor surfaces of vinyl composite tile found in retail, school, entertainment and healthcare facilities. Other institutional surfaces include terrazzo (marble or granite set in concrete), wood and marble. Household surfaces may include wood, linoleum, and ceramic tiles. Household floor finishes are based on the same formulation as institutional finishes.

1.8 Typical active ingredients in hard floor care products differ from product type to product type. Finishes and sealers generally include polymers (stabilized in emulsion by surfactants/stabilizers), plasticizers, coalescents, waxes, preservatives, surfactants, ammonia / amines and water. Strippers generally contain solvents, amines, and bases. Neutralizers serve to neutralize the alkalinity of floor stripper and generally contain a mixture of acids. Restorers generally contain the same ingredients as finishes with a lower proportion of polymer and a higher proportion of surfactant.

1.9 This Standard is a republication of EcoLogo Certification Criteria Document (CCD) 147, Hard Floor Care Products. The criteria have been reformatted for consistency with the Style Manual for UL Standards.

2 Scope

2.1 This Standard covers all hard floor care products as further defined by the following:

- a) Floor finishes and sealers;
- b) Strippers and neutralizers;
- c) Restorers.

2.2 Hard floor care products that fall under this Standard include floor finishes, floor strippers, alkali neutralizing solutions, floor finish restorers and sealers. The product group includes solutions designed for use on ceramic, terrazzo, vinyl composite tile, concrete, linoleum, rubber, and marble surfaces. Products sold to the institutional market as well as products sold to the household market are covered under this Standard. It does not include products designed for unfinished wood floors, or products designed to cure concrete surfaces. These criteria do not apply to floor cleaners.