UL 2700

STANDARD FOR

Sustainability for Cleaning and Cleaning Related Products

Standard for Sustainability for Cleaning and Cleaning Related Products, UL 2700

First Edition, Dated December 12, 2023

Summary of Topics

This revision of UL 2700 dated February 7, 2024, includes items which were inadvertently left out of the new edition published December 12, 2023: 1.2, 2.1, Section 4, 5.19, 5.23, 5.29, 6.1.3, 6.4.2, 6.5.1, 6.9.2, 6.10.1, 6.11.4, 8.1, 8.2, 9.1, 9.3, 12.1, 15.1, Section 15A, 16.1, 17.1, 18.1, 18.3, 19.1, 20.1, 25.1, 26.1, 29.5, 30.2, Annex A and C1.1

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated August 13, 2021, July 21, 2023, and September 6, 2023.

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UL 2700

Standard for Sustainability for Cleaning and Cleaning Related Products

First Edition

December 12, 2023

This UL Standard consists of the First Edition including revisions through February 7, 2024.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 General

1.1 The requirements contained in this standard are designed to support a continuing effort to improve and/or maintain environmental quality and health impacts by reducing energy and materials consumption and by minimizing the impacts of pollution generated by the production, use and disposal of goods and services covered under the scope of the standard.

1.2 This standard serves as a consolidation and update for the following documents:

a) UL 2759, Hard Surface Cleaners;

b) UL 2776, Liquid Laundry Detergent and Fabric Softeners;

c) UL 2777, Hard Floor Care Products;

d) UL 2780, Urinal Blocks;

e) UL 2781, Pool and Spa Water Treatment Products;

f) UL 2791, Drain and/or Grease Trap Additives;

g) UL 2792, Biologically Based Cleaning and Degreasing Compounds;

h) UL 2795, Carpet and Upholstery Cleaners;

i) UL 2796, Odor Control Additives;

j) UL 2797, RV and Marine Holding Tank Treatment;

k) UL 2798, Biological Digestion Additives for Cleaning and Odor Control; and

l) UL 2829, Laundry Bleach.

1.3 This standard and the requirements therein do not supersede laws or regulations.

2 Scope

2.1 This Standard establishes general requirements for human health and environmental criteria for industrial, institutional, and consumer cleaning and cleaning-related products such as but not limited to:

a) Hard Surface Cleaners:

1) Bathroom cleaners (Non-Disinfecting);

2) Boat and bilge cleaners;

3) Cooking appliance cleaners;

4) Cream Cleaner;

5) Degreasers and industrial cleaners;

6) Floor Cleaners;

7) General Purpose Cleaners;

8) Glass and window cleaners;

9) Toilet Bowl Cleaner (Non-Disinfecting);

10) Stainless steel Cleaners;

11) Vehicle Cleaners;

b) Dish-related Cleaners:

1) Warewash detergent;

2) Pre-soak aids;

3) Rinse aids;

c) Carpet and Upholstery Care Products;

d) Laundry Cleaners and Softeners:

1) Laundry detergents;

2) Laundry bleach;

3) Laundry pre- and spot treatments;

4) Fabric softeners;

e) Hard Floor Care Products:

1) Sealers;

2) Finishes;

3) Strippers;

4) Defoamers;

f) Biologically-Based Products:

1) Degreasing compounds;

2) Drain and/or grease trap additives;

g) Odor Control Products:

1) Ambient odor control products.

2.2 This Standard does not cover the following products:

a) Products intended for critical or non-critical medical device cleaning or sanitation.

b) Disinfectant products known as hardsurface disinfectants or low-level disinfectants and serve to kill pathogenic microorganisms (bacteria, fungi) on hard non-porous surfaces.

c) Sporocides and sterilizers or other products for use to sterilize critical medical instruments and equipment.

d) Personal care products.

e) Cleaning wipes.

f) This standard does not apply to disinfectants and sanitizers (ie. Any product with an EPA registration number) .

2.3 This Standard also establishes general requirements for human health and environmental criteria for ingredients and/or raw materials that may be used in products within the scope.

2.4 The requirements in this standard specify whether it applies to the Diluted product, Concentrated Product, or Finished Product, and the product As-sold or As-used.

2.5 Refer to Annex C for cleaning products that are intended to be addressed by future editions of this Standard.

3 Units of Measurement

3.1 For the purposes of these requirements, values shall be reported in accordance with the requirements of the specific criteria and shall be in metric units. If a manufacturer's choice of units deviates, that change shall be documented and justified as to the reason and relevance for that change.

4 Referenced Publication

4.1 Any undated reference to a code, or standard, or legislation appearing in the criteria of these requirements shall be interpreted as referring to the latest edition of that code or, standard, or legislation. The exception shall be in the case where the criterion explicitly states a certain version or date to be used.

ASTM D2047, *Standard Test Method for Static Coefficient of Friction of Polish-Coated Surfaces as Measured by the James Machine*

ASTM D3052, *Standard Practice for Rating Water-Emulsion Floor Polishes*

ASTM D3556-85, *Standard Test Method for Deposition on Glassware During Mechanical Dishwashing*

ASTM D3892, *Standard Practice for Packaging/Packing of Plastics*

ASTM D4330, *Standard Practice for Evaluation of Fiberglass Boat Polish and Wax*

ASTM D4488, Annexes A5 and A6, *Standard Guide for Testing Cleaning Performance of Products Intended for Use on Resilient Flooring and Washable Walls*

ASTM D5343, *Standard Guide for Evaluating Cleaning Performance of Ceramic Tile Cleaners*

ASTM D6400, *Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities*

ASTM D6625-13, *Standard Practice for Conducting a Test of Protective Properties of Polish Applied to a Painted Panel Using Fluorescent UV-Condensation Light- and Water-Exposure Apparatus*

ASTM D6868-21, *Standard Specification for Labeling of End Items that Incorporate Plastics and Polymers as Coatings or Additives with Paper and Other Substrates Designed to be Aerobically Composted in Municipal or Industrial Facilities*

ASTM E1593, *Standard Guide for Assessing the Efficacy of Air Care Products in Reducing Sensory Perceived Indoor Air Malodor Intensity*

ASTM G122, *Standard Test Method for Evaluating the Effectiveness of Cleaning Agents and Processes*

Safe Drinking Water and Toxic Enforcement Act of 1986 (also known as California Proposition 65)

SB-258 *Cleaning Product Right to Know Act of 2017*

CGSB CAN/CGSB-2.60-92, *Remover for Water-Emulsion Floor Polish and Wax*

CGSB CAN/CGSB-25.20, *Surface Sealer for Floors*

CGSB CAN/CGSB-25.1 No. 50.1, *Methods of Sampling and Testing Waxes and Polishes Floor Test*

CGSB 2-GP-11M METH 20.3, *Methods of Testing and Analysis of Soaps and Detergents Cleaning Efficiency*

Consumer Chemicals and Containers Regulations, 2001 (SOR/2001-269) of the *Canada Consumer Product Safety Act*

Hazardous Products Regulations (SOR/2015-17) (WHMIS 2015 system) of the *Hazardous Products Act*

New Substances Notification Regulations (Organisms) (SOR/2005-248)

Federal Hazardous Substances Act Regulations (16 CFR Part 1500)

CSPA DCC-05A, *Deposition on Glassware During Mechanical Dishwashing*

CSPA DCC-12, *Guidelines for Screening the Efficacy of Oven Cleaners*

CSPA DCC-17, *Greasy Soil Test Method for Evaluating Spray-and-Wipe Cleaners Used on Hard, Non-Glossy Surfaces*

CSPA DCC-16, *Guidelines for Evaluating the Efficacy of Bathroom Cleaners – Scrubber Test for Measuring the Removal of Lime Soap*

Federal Hazardous Substances Act Regulations (16 CFR Part 1500)

CSMA DCC-09, *Glass Cleaners*

Priority List of Endocrine Disruptors

Globally Harmonized System of Classification and Labeling of Chemicals (GHS)
Current version is dated 2017 and should be referred to for the following endpoints: Carcinogenicity, Mutagenicity, Reproductive Toxicity, Skin or Respiratory Sentisation, Specific Target Organ Toxicity (STOT) – Repeated Exposure (RE)

International Agency for Research on Cancer (IARC)

Code of Practice, IFRA

ISO 7535, *Surface active agents – Detergents for domestic machine dishwashing – Guide for comparative testing of performance*

ISO 11469, *Plastics – Generic Identification and Marking of Plastic Products*

NEMI Standards Methods: 2540

OECD Guidelines for Testing of Chemicals, Ready Biodegradability 301A: *DOC Die-Away*

OECD Guidelines for Testing of Chemicals, Ready Biodegradability 301B: *Co2 Evolution (Modified SturmTest)*

OECD Guidelines for Testing of Chemicals, Ready Biodegradability 301C: *Modified MITI (I)*

OECD Guidelines for Testing of Chemicals, Ready Biodegradability 301D: *Closed Bottle*

OECD Guidelines for Testing of Chemicals, Ready Biodegradability 301E: *Modified OECD Screening*

OECD Guidelines for Testing of Chemicals, Ready Biodegradability Test 301F: *Manometric Respirometry*

OECD Guidelines for Testing of Chemicals, Method 420, *Acute Oral toxicity – Fixed Dose Procedure*

Model Toxics in Packaging Legislation, Toxics in Packaging Clearinghouse (TPHC)

MIL-C=22230 B *Cleaning Compound, Fuel Tank & Bilge*

A-A-7, *Cleaning Compound, Solvent-Detergent (Alkaline Cleaner – Degreaser for Ovens, Grills and Washable Surfaces)*

5 Glossary

5.1 For the purpose of these requirements, the following definitions apply.

5.2 AS-SOLD – A product that has undergone all stages of production, including packaging in its final container and labeling made available to the end user. Can cover concentrated (undiluted) or as-used products.

5.3 AS-USED – The final, potentially diluted, product as applied by the end user.

5.4 ASTHMAGENS – Substances designated as asthma causing agents by the Association of Occupational and Environmental Clinics.

5.5 BIOLOGICALLY-BASED PRODUCT – A product that uses bacteria, bacterial spores, microbial components or enzymes to break down organic soil.

5.6 CARCINOGENS – Known or probable carcinogen as classified by National Toxicity Program (NTP), International Agency for Research on Cancer (IARC) or California Office of Environmental Health Hazard Assessment Proposition 65 (Prop 65).

5.7 CHLORINATED PLASTIC MATERIAL – Packaging materials made of polyvinyl chloride (PVC) or other chlorinated compounds.

5.8 CLOSED LOOP DISPENSING SYSTEM – A system that controls the dilution of a concentrated product so that the undiluted product cannot be practically accessed by users.

5.9 CODE OF PRACTICE OF THE INTERNATIONAL FRAGRANCE ASSOCIATION – A set of guidelines for fragrance manufacturers on the amounts and types of fragrances permitted for use. Consideration is given to skin irritation, toxicity and possible environmental effects of different fragrance.

5.10 COMPOSTABLE – Materials which biodegrade in a composting process through the action of naturally occurring micro-organisms and do so to a high extent within a specified timeframe. The associated biological processes during composting will yield CO_2, water, inorganic compounds and biomass which leaves no visible contaminants or toxic residue/substances.

5.11 CONCENTRATED PRODUCT – An as-sold product that needs to be diluted with water or another solvent prior to use (undiluted product).

5.12 CONTAMINANTS – A chemical less than 0.01 % by weight in a product that is an incidental component, contaminant of an intentionally added ingredient, a breakdown product of an intentionally added ingredient, or a byproduct of the manufacturing process that has no functional or technical effect on the designated product.

5.13 ENDOCRINE DISRUPTOR – An exogenous substance or mixture that alters functions of the endocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub)populations.

5.14 FRAGRANCE – A substance used specifically to impart a smell to a product, either to hide an unpleasant odor or to impart a more aesthetically pleasant smell.

5.15 GENETICALLY MODIFIED ORGANISM (GMO) – An organism that is produced via genetic engineering within a laboratory setting, and a gene from one organism is purposely moved to improve or change another organism.

5.16 HALOGENATED SOLVENT – Any solvent containing organic molecules halogenated with fluorine, chlorine, bromine or iodine, or mixtures thereof.

5.17 INTENTIONALLY ADDED INGREDIENTS – a chemical that a manufacturer has intentionally added to a designated product and that has a functional or technical effect in the designated product, including, but not limited to, the components of intentionally added fragrance ingredients and colorants and intentional breakdown products of an added chemical that also have a functional or technical effect in the designated product.

5.18 INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) – An organization which lists known and suspected carcinogens.

5.19 MUTAGENS – Any agent giving rise to an increased occurrence of mutations in populations of cells and/or organisms, as defined in the Globally Harmonized System of Classification and Labeling of Chemicals, GHS Rev. 2023).

5.20 NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) – A laboratory recognized under the applicable national laboratory accreditation system to test products to the applicable requirements.

5.21 ODOR CONTROL PRODUCT – A chemical product intended to remove or mask airborne malodors. These products may also be called odor counteractants, air fresheners or deodorizers.

5.22 OPTICAL BRIGHTENERS – An additive designed to enhance the appearance of colors and whiteness in materials by absorbing ultraviolet radiation and emitting blue radiation.

5.23 OZONE DEPLETING SUBSTANCES – Any of the controlled substances listed in Annexes to the Montreal Protocol, as referenced in the the Globally Harmonized System of Classification and Labeling of Chemicals, GHS Rev, 2023.

5.24 POST-CONSUMER – Material that has served its end-use at the consumer level, has been discarded by the consumer.

5.25 PRIMARY PACKAGING – The material physically coming into contact with and containing the product; also includes those materials which ensure product integrity, safety, regulatory compliance (on-package labels, e.g.,) and prevent illicit tampering.

5.26 PROPELLANTS – Compressed gases or vapors in a container that, upon release of pressure and expansion through a valve, carries another substance from the container. Typical propellants are carbon dioxide, propane, butane, and isobutane.

5.27 QUATERNARY AMMONIUM COMPOUND (QUAT) – An active ingredient that is an organic nitrogen compound in which a central nitrogen atom is joined to four organic cations and one anionic acid radical. Such compounds include, alkyl dimethyl benzyl ammonium chloride and didecyldimethylammonium chloride, benzalkonium chloride, benzethonium chloride, methylbenzethonium chloride.

5.28 READILY BIODEGRADABLE – An ingredient that meets the requirements of Organization for Economic Cooperation and Development (OECD) Guidelines for the Testing of Chemicals Test No. 301 – Ready Biodegradability.

5.29 REPRODUCTIVE TOXIN – Substance or mixture causing adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in the offspring, occurring after exposure, as defined in Globally Harmonized System of Classification and Labeling of Chemicals, GHS Rev. 10, 2023. Reproductive toxins also include chemicals that are known to cause birth defects or male and/or female reproductive or developmental toxicity.

5.30 SKIN SENSITIZER – is a substance that will induce an allergic response following skin contact. Classified as Globally Harmonized System (GHS) hazard category 1 or sub-category 1A or 1B.

5.31 SOLVENT – A general term for a chemically diverse range of liquid substances which dissolve other materials.

5.32 SURFACTANT (SURFACE-ACTIVE AGENT) – Any compound that reduces interfacial tension between two liquids or between a liquid and a solid. The four categories of surfactants, based on charge, are anionic, nonionic, cationic, amphoteric.

5.33 TOXIC – The degree to which a substance or mixture of substances can harm humans, plants, and/or animals. Acute toxicity is the ability of a substance/mixture to cause harmful effects in an organism through a single or short-term exposure via three routes: oral, dermal, inhalation. Subchronic toxicity is the ability of the substance/mixture to cause effects for more than one year but less than the lifetime of the exposed organism. Chronic toxicity is the ability of a substance/mixture to cause harmful effects over an extended period, usually upon repeated or continuous exposure sometimes lasting for the entire life of the exposed organism.

5.34 UNDILUTED PRODUCT – See CONCENTRATED PRODUCT, 5.11

5.35 USE DILUTION – Dilution at which a product provides its desired effect. The use dilution is determined by the product manufacturer.

5.36 VOLATILE ORGANIC COMPOUND (VOC) – Carbon based chemical that has an initial boiling point of less than 250 °C (482 °F) and a vapor pressure superior to water at 25 °C and 101.3 kPa.

PERFORMANCE

6 Health

6.1 General

6.1.1 The following section contains general health and environment requirements for all products covered under this standard.

6.1.2 Unless stated otherwise, the following requirements apply to intentionally added ingredients and contaminants above 0.01 % mass; these shall be disclosed.

6.1.3 The product shall not qualify to be labeled fatal (poisonous) or corrosive at use dilution under the following regulations:

a) In the U.S., the Federal Hazardous Substances Act Regulations (16 CFR Part 1500); and/or

b) In Canada:

1) For consumer products: Consumer Chemicals and Containers Regulations, 2001 of the Canada Consumer Product Safety Act, or

2) For commercial or industrial products: Hazardous Products Regulations (WHMIS 2015 system) of the Hazardous Products Act.

6.1.4 The product must be in compliance with the California Cleaning Product Right to Know Act by posting its full chemical ingredient list on the manufacturer's website.

6.2 Human health hazards

6.2.1 The as-sold product shall not contain any hazardous intentionally added ingredients or contaminants classified within the following hazard statements according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) as follows:

a) Carcinogenic effects – H350, H351;

b) Mutagenic effects – H340, H341;

c) Reproductive and developmental effects – H360, H360F, H360D, H360FD, H360Fd, H360Df, H361, H361f, H361d, H361fd, H362;

d) Skin Sensitization effects – H317;

e) Respiratory Sensitization effects – H334; or

f) Target Organ acute and repeated exposure effects – H370, H372.

6.2.2 As-sold products shall not be formulated or manufactured with ingredients classified as Category 1 or 2 per the EU Priority List of Endocrine Disruptors, or listed as an endocrine disruptor under SB258.

6.3 Lethal dose toxicity

6.3.1 Products shall demonstrate that the as-sold product is not toxic to humans, as calculated by weighted average of individual ingredients, for each of the following routes of exposure:

a) Oral Toxicity: should demonstrate low oral toxicity with LD50 >5000 mg/kg using procedures defined in the Globally Harmonized System for Classification and Labeling of Chemicals (GHS);

b) Dermal Toxicity: should demonstrate low dermal toxicity with LD50 >4000 mg/kg using procedures defined in the Globally Harmonized System for Classification and Labeling of Chemicals (GHS); and

c) Inhalation Toxicity: should demonstrate low inhalation toxicity with LD50 >10,000 mg/kg (using procedures defined in the Globally Harmonized System for Classification and Labeling of Chemicals (GHS).

NOTE: If insufficient data exist to characterize all ingredients, the product may demonstrate conformance to the above values through whole product testing.

6.4 Restricted compounds

6.4.1 As-sold products contain no more than 10 ppm of any substances listed on:

a) European Union REACH Regulation listing of substances of very high concern;

b) California Proposition 65; and

c) Any of the items in Annex B.

6.4.2 As-sold products shall not contain intentionally added ingredients or contaminants that are any of the following:

a) Ethylene diaminetetracetic acid, ethylene dinitrilotetracetic acid, nitrilotriacetic acid, or salts of these compounds;

b) Inorganic phosphates;

c) Ammonia or ammonium compounds;

d) Phthalates;

e) Ozone depleting substances;

f) Toxic metals, either in elemental form or in compounds;

g) Anti-microbial compounds, such as quaternary ammonium compounds or sodium or calcium hypochlorite and other halogenated compounds;

h) Aromatic solvents or halogenated solvents;

i) The following ethers or their acetates:

1) Ethylene glycol ethers;

2) Diethylene glycol ethers;

3) Triethylene glycol ethers;

j) PFAS;

Note: As-sold products that contain <100 ppm fluorine are determined to be free of PFAS.

k) Alkyl phenol ethoxylates (e.g., nonylphenol ethoxylate); and

l) All chemicals on the Association of Occupational and Environmental Clinics (AOEC) list of asthmagens.

6.5 Skin and eye irritants

6.5.1 The product at use dilution shall not be classified within the following hazard statements according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS):

a) Skin Irritation effects: H315; and

b) Eye Irritation effects: H319

6.6 Antibacterials

6.6.1 The as-sold product shall not be formulated with antibacterial ingredients as preservatives.

6.7 Thickeners

6.7.1 If the as-sold product is formulated using thickeners, the product shall include only thickeners classified by the U.S. Food and Drug Administration as food grade.

6.8 Preservatives

6.8.1 The manufacturer shall identify the product shelf life, and provide a report on the test method and results to demonstrate that the corresponding lowest possible amount of preservative has been included in the product.

6.9 Fragrances

6.9.1 If the as-sold product is formulated with fragrances, only fragrances that conform with the current Code of Practice of the International Fragrance Association (IFRA) shall be used.

6.9.2 For the purposes of this Standard, any fragrance ingredient present at >0.01 % in the as-sold product, shall be evaluated to all other criteria in Section 6, Health, as a single ingredient.

6.10 Colorants

6.10.1 If the as-sold product is formulated or manufactured with colorants, they shall be:

a) Permitted by the U.S. Food and Drug Administration for food, drug, and cosmetic (FD&C) use; or

b) Included in the Safer Chemical Ingredient List (SCIL) under the EPA Safer Choice program; or

c) Natural color ingredient; or

d) Polymeric colorants.

6.11 Corrosivity and pH

6.11.1 The as-sold product shall not be classified as Corrosive: H290 according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Exception: If the product is corrosive as-sold, the manufacturer's instructions shall require that the product shall be dispensed with a closed loop dispensing system and be stored in corrosive resistant container or corrosive resistant liner.

6.11.2 The product at use dilution shall have a pH level between 2.0 and 11.5 inclusively.

6.11.3 Products formulated for household, domestic or retail markets shall have a pH no less than 3 and no greater than 11, for the as-sold concentration.

Exception: Hard floor care products shall have a pH of not more than 12.5.

6.11.4 If the pH is greater than 9, test data shall demonstrate that the product shall not adversely affect the surface to which the manufacturer's instructions indicate it may be applied.

ENVIRONMENT

7 Ozone Depleting Chemicals

7.1 The product at use-dilution shall not be classified as Hazardous to the Ozone layer: H420 according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

8 Volatile Organic Compounds

8.1 Products shall not contain more than 1 % by weight of volatile organic compounds (VOC) at use dilution, and concentrated products shall not contain more than 12 % by weight as-sold.

Exception No. 1: Degreasers shall contain less than 3 % by weight VOC at use dilution and less than 25 % as-sold for concentrated product.

Exception No. 2: For odor control products, the ambient odor control product shall not be formulated or manufactured with more than 18 % by weight of volatile organic compounds (VOC) at use dilution.

Exception No. 3: Hard floor care products shall contain the following VOC levels at use dilution:

a) Finishes and Sealers: <7 % (flexible flooring); <10 % (non-resilient flooring);

b) Strippers and Neutralizers: <7 %;

c) Restorers: <3 %.

8.2 Products as-sold shall meet the South Coast Air Quality Management District (SCAQMD) VOC limits under Rule 1168 or Rule 1122, as applicable.

9 Environmental (or Aquatic) Toxicity

9.1 The as-sold product shall not be classified within the following hazard statements according Globally Harmonized System of Classification and Labeling of Chemicals (GHS) for environmental hazards as follows:

a) Acute Aquatic Toxicity – H400, H410, H411;

b) Chronic Aquatic Toxicity – H420.

9.2 Whole product toxicity testing, may be submitted only when pre-existing toxicity information for individual chemicals is in-sufficient or no data exists to characterize the entire chemical formulation.

9.3 *Deleted*

10 Biodegradability

10.1 The product shall either:

a) Not be formulated or manufactured with any ingredient that is not readily biodegradable (not persistent); or

b) The product at use dilution shall demonstrate ready biodegradability in accordance with the OECD definition, and shall be measured according to relevant OECD or ISO methods (i.e. OECD 301A-F).

11 Persistent Bioaccumulative Toxic (PBT) Chemicals or very PBT (vPvB) Chemicals

11.1 The product shall not be formulated or manufactured with any ingredient that forms degradation products that bioaccumulate. The product shall not require classification as PBT or vPvB.

12 Hazardous Chemicals

12.1 Unless otherwise stated in this Standard, the as-sold product shall not be classified within the following hazard statements according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS), and: any H200 level hazards.

13 Microplastics

13.1 The as-sold product shall not be formulated with microplastic particles with a size below 5 mm.

14 Raw Materials

14.1 Palm oil, palm kernel oil and palm oil derivatives shall comply with the requirements of the Roundtable on Sustainable Palm Oil (RSPO). Mass Balance, Segregated or Identity Preserved are accepted as traceability systems.

14.2 The requirement does not include raw materials <1 % in the final product.

PRODUCT CATEGORY SPECIFIC REQUIREMENTS

15 Floor Care Products

15.1 For hard floor care products, the individual percentages of solids of different types shall be disclosed according to the method explained in NEMI/EPA Standard Methods 2540, “Solids”. The total amount of solid shall not be less than 15 % of the entire product.

15.2 If sold as a neutralizer that includes an acid, the product shall then be formulated or manufactured with food grade acids.

15A Biologically-Based Products

15A.1 If the product is intended for the Canadian market, the manufacturer shall provide evidence that microbial strains are in compliance with the Canadian New Substance Notification (NSN) Regulations.

PRODUCT EFFICACY

16 General Product Efficacy Requirements

16.1 Cleaning efficacy shall be demonstrated according to an appropriate method, as indicated in subsequent Clauses of this Section.

NOTE: Must at minimum meet requirements of local regulations for example in Canada, and the USA.

16.2 Efficacy testing shall comply with the following general conditions:

a) Testing shall be performed by a Nationally Recognized Testing Laboratory (NRTL), or equivalent;

b) Testing shall be carried out under controlled, replicable conditions; in situ or anecdotal data is not acceptable;

c) Generated test data shall be objective and quantified in recognized metric units; subjective observations are not generally acceptable, unless accompanied by at least one independent objective measure;

d) All control conditions shall be specified;

e) The product shall be tested at its maximum recommended dilution (i.e., minimum concentration); and

f) A complete copy of the testing protocol and final report shall be made available to the certification organization.

17 Cleaning and Degreasing Compounds

17.1 Cleaning and degreasing compounds shall meet the requirements of ASTM D4488, Annex A5 or A6.

18 Odor Control Products

18.1 Odor control products shall be effective as determined by using a standard respirometry test, such as ASTM E1593, Standard Guide for Assessing the Efficacy of Air Care Products in Reducing the Perception of Indoor Malodor, and ASTM E1958, Standard Guide for Sensory Claim Substantiation. Testing will be performed using either a hydrogen sulphide solution or a trimethylamine solution as the malodor model.

18.2 Tests results shall indicate that the additive:

a) Controls odors emitted from the holding tank;

b) Helps to decrease the amount waste materials introduced to the holding tank;

c) Helps to facilitate natural aerobic metabolism (respiration) within the holding tank; and

d) Helps to maintain a clear holding tank environment.

18.3 If the product is advertised as containing specific odor destroying or neutralizing ingredients, demonstrate that these ingredients do so through a physio-chemical process that shall not simply masking and overpowering odors.

19 Drain or Grease Trap Additives

19.1 *Deleted*

20 Hard Floor Care Products

20.1 Hard floor care products shall conform to the requirements of the standards and procedures described below:

a) Finishes and Restorers – Shall perform as well as a functionally equivalent national brand product according to the procedure outlined in ASTM D3052, Standard Practice for Rating Water-Emulsion Floor Polishes, OR finishes shall perform as well as the reference polish in CAN/CGSB-25.1, No. 50.1, Methods of Sampling and Testing Waxes and Polishes: Floor Test.

NOTE: Because of the lack of a recognized standard for restorers, these products are to be compared using the above comparison procedures (e.g., relative rating) in, at minimum, the areas of gloss and soil resistance.

b) Sealers – Shall demonstrate resistance to the solutions as outlined in CAN/CGSB-25.20, Surface Sealer Floors.

NOTE: Candidate sealer products should be tested on vinyl composite tile instead of the glass plate specified in the test method.

c) Strippers – Shall remove the standard reference polish according to the procedure outlined in CAN/CGSB-2.60, Remover for Water-Emulsion Floor Polish and Wax.

NOTE: If the stripper is explicitly formulated to work best on a specific type of floor finish with a proviso that results on other finishes cannot be guaranteed, then the test should be done on the type of finish for which the stripper is advertised. CAN/CGSB 2.60 specifies a 20 % solution be used. The applicant may perform the test with a different concentration as long as it is the concentration indicated for normal stripping.

d) Neutralizers – Shall demonstrate performance as outlined in Product Efficacy, Sections 16 – 28.

20.2 Hard floor care products shall provide a surface with good slip resistance by demonstrating a coefficient of friction >0.5 according to the Standard Test Method for Static Coefficient of Friction of Polish-Coated Surfaces as Measured by the James Machine, ASTM D2047.

20.3 Floor finishes and restorers shall perform as well as a functionally equivalent national brand product according to the procedure outlined in the Standard Practice for Rating Water-Emulsion Floor Polishes, ASTM D3052.

21 Hard Surface Cleaners

21.1 Hard surface cleaners shall comply with CSPA DCC-17, Greasy Soil Test Method for Evaluating Spray-and-Wipe Cleaners Used on Hard, Non-Glossy Surfaces.

22 Bathroom Cleaners

22.1 Bathroom cleaners shall:

a) If formulated as a soap scum remover, demonstrate at least 75 % efficiency in removing soil (soap scum) in ASTM D5343, Standard Guide for Evaluating Cleaning Performance of Ceramic Tile Cleaners;

b) If formulated as a toilet bowl or urinal cleaner, demonstrate efficiency in removing mineral stains as measured by an acceptable test method (see Cleaning and Degreasing Compounds, Section 17); or

c) Comply with CSPA DCC-16, Guidelines for Evaluating the Efficacy of Bathroom Cleaners – Spot, Soap Scum, or Lime Soap Removal.

23 Boat and Bilge Cleaners

23.1 Boat and bilge cleaners shall:

a) If formulated as a wax, perform as well as the control product in a test based on ASTM D4330, Standard Practice for Evaluation of Fiberglass Boat Polish and Wax; or

b) If formulated as a bilge cleaner, meet cleaning efficiency requirements outlined in Section 4.5 of the U.S. military specification document MIL-C-22230B, Cleaning Compound, Fuel Tank & Bilge.

24 Cooking Appliance Cleaners

24.1 Cooking appliance cleaners shall:

a) Clean oven, grill and barbeque surfaces effectively as measured by the Federal specification document A-A-7B “Cleaning Compound, Solvent-Detergent (Alkaline Cleaner – Degreaser for Ovens, Grills and Washable Surfaces)”; or

b) Comply with CSPA DCC-12, “Guidelines for Screening the Efficacy of Oven Cleaners.

25 Degreasers and Industrial Cleaners

25.1 Degreasers and industrial cleaners shall demonstrate at least 75 % cleaning efficiency as measured by any of the following test methods:

a) ASTM Method G122, Standard Test Method for Evaluating the Effectiveness of Cleaning Agents;

b) CSPA DCC-17, Greasy Soil Test Method for Evaluating Spray-and-Wipe Cleaners Used on Hard, Non-Glossy Surfaces; or

c) A method based on CAN/CGSB 2-GP-11, Method 20.3, Methods of Testing and Analysis of Soaps and Detergents.

26 Dishwashing Detergents

26.1 Dishwashing detergents shall:

a) If formulated as a hand dishwashing product, clean dishes effectively, or demonstrate at least 75 % cleaning efficiency as measured by a method in line with:

1) ISO 4198, Surface Active Agents – Detergents for Hand Dishwashing – Guide for Comparative Testing of Performance;

2) CSPA DCC-10, Foam Stability for Hand Dishwashing Detergent;

3) ASTM D4009-92 (2006), Standard Guide for Foam Stability of Hand Dishwashing Detergents; or

b) If formulated for use in an automatic dishwasher product, clean dishes effectively, or demonstrate at least 75 % cleaning efficiency, as measured by a method in line with:

1) ISO 7535, Surface Active Agents – Detergents for Domestic Machine Dishwashing – Guide for Comparative Testing of Performance;

2) CSPA DCC-05A, Deposition on Glassware during Machine Dishwashing; or

3) ASTM D3556-85 (2009), Standard Test Method for Deposition on Glassware During Mechanical Dishwashing.

27 Vehicle Cleaners

27.1 Vehicle cleaners, if formulated as a polish, shall perform better than the control in a performance test based on ASTM D6625, Standard Practice for Conducting a Test of Protective Properties of Polish Applied to a Painted Panel Using Fluorescent UV-Condensation Light- and Water-Exposure Apparatus.

28 Window and Glass Cleaners

28.1 Window and glass cleaners shall:

a) As-used, clean common glass and other highly-polished surfaces effectively as determined by either a minimum "3" rating for cleaning, streaking and smearing, when assessed with CSMA DCC-09: Glass Cleaners; and

b) Not damage or degrade polymer-based solar screens or other window treatments.

PACKAGING REQUIREMENTS

29 General

29.1 The primary and secondary packaging shall not include chlorinated plastic materials.

29.2 Packaging made of plastic shall be in compliance with the Standard Practice for Packaging/Packing of Plastics, ASTM D3892, or the Standard for Plastics – Generic Identification and Marking of Plastic Products, ISO 11469.

29.3 If made of fiber, the materials used shall not be bleached with compounds containing or giving rise to elemental chlorine.

29.4 The product packaging shall be in compliance with the “Model Toxics and Packaging Legislation”.

29.5 Non-plastic packaging comprise at least 90 % by weight recyclable or compostable materials as defined by ASTM D6400, Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities or ASTM D6868, Standard Specification for Labeling of End Items that Incorporate Plastics and Polymers as Coatings or Additives with Paper and Other Substrates Designed to be Aerobically Composted in Municipal or Industrial Facilities.

30 Closed Loop Dispensing Systems

30.1 Products formulated in closed loop dispensing systems shall meet the following criteria at the most concentrated use dilution specified by the manufacturer:

a) Lethal Dose Toxicity, 6.3.1;