

 Green Mark	<b>Cleaning Products for Industrial and Commercial Use</b>	No. 130
		Category No. L-09
<p><b>1. Scope</b>  This standard is applicable to cleaning products for industrial and commercial use, but excludes cleaning products for skin and hair use, cleaning products for household use, cleaning products in high-pressure spray cans, and cleaning products for fruits and vegetables.</p> <p><b>2. Terms and definitions</b>  For this standard, the following terms and definitions shall apply.  <b>Total volatile organic compounds (TVOCs):</b> The sum of concentrations for the following compounds: benzene, carbon tetrachloride, chloroform, 1,2-dichlorobenzene, 1,4-dichlorobenzene, dichloromethane, ethylbenzene, styrene, tetrachloroethylene, trichloroethylene, toluene, and (p, m, o)xylene.</p> <p><b>3. Product characteristics</b></p> <p>3.1 The biodegradability of the surface active agent(s) in the product, and pH range of the product, shall be within the specified regulatory value.</p> <p>3.2 The product shall not contain fluorescent brightening agent, chlorine-containing bleach, formaldehyde and triclosan. The measured contents of these aforementioned substances shall be below the regulatory limits.</p> <p>3.3 The product shall not contain arsenic, cadmium, mercury, selenium, lead, and hexavalent chromium. The measured contents of these metals shall be below the regulatory limits.</p> <p>3.4 The product's contents of total phosphorus, nitrilotriacetic acid (NTA), perborate, ethylenediamine tetraacetic acid (EDTA), alkylphenoethoxylate (APEO) and TVOCs shall be below the regulatory limits.</p> <p>3.5 The colorant(s) used in the product shall be listed in the <i>Standard for the Applications and Content Limitations of Food Additives</i> or the <i>List of Statutory Colorants for the Cosmetics</i> promulgated by the Ministry of Health and Welfare.</p> <p>3.6 The product shall not contain hazardous substances assigned the following hazard classifications by the Globally Harmonized System of Classification and Labelling of Chemicals (GHS): H300, H301, H304, H310, H311, H317, H330, H331, H334, H340, H341, H350, H351, H360, H361, H362, H370, H371, H372, H373, H400, H410, H411, H412, H413 and H420. The applicant shall provide a complete list of product ingredients and formulations, and associated material safety data sheets (MSDSs) for review. The MSDS shall contain the ingredients' names, CAS Nos. and applicable GHS hazard classifications, as well as relevant hazards and precautionary</p>		
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information. However, this requirement is exempted for product's surface active agent if such agent has a hazard statement of H412, but a biodegradability within the specified regulatory value.

3.7 The product and its manufacturing processes shall not use substances stipulated by the Taiwan EPA as toxic substances, and substances controlled by the Montreal Protocol.

#### 4. Test methods and regulatory limits

The regulated substances and regulatory limits for this standard are listed below. The applicable test methods shall be the national, international or specific industry standard methods, and the test reports shall be issued by accredited professional testing organizations.

Applicable Content	Regulated Substance	Regulatory Limit	Referenced Test Method
Cleaning agent	biodegradability of surface active agent	$\geq 95\%$	CNS 4984
Cleaning agent	pH	3-11	NIEA R208 NIEA W424 CNS 2477 CNS 3800 CNS 4987
Cleaning agent	fluorescent brightening agent	no fluorescent reaction	CNS 4986
Cleaning agent	chlorine-containing bleach	<0.01%	CNS 4986
Cleaning agent	formaldehyde	<15 mg/kg	NIEA R502
Cleaning agent	triclosan	< 5 mg/kg	NIEA R814 CNS 15492
Cleaning agent	arsenic	< 3 mg/kg*	US EPA 3052 US EPA 6020
Cleaning agent	cadmium	< 2 mg/kg	US EPA 3052 US EPA 6020
Cleaning agent	mercury	< 2 mg/kg*	US EPA 3052 US EPA 6020
Cleaning agent	selenium	< 5 mg/kg*	US EPA 3052 US EPA 6020
Cleaning agent	lead	< 2 mg/kg	US EPA 3052 US EPA 6020
Cleaning agent	hexavalent chromium	< 3 mg/kg*	NIEA T303 US EPA 3060 US EPA 7196
Cleaning agent	total phosphorus	< 0.1%	US EPA 6010 EN 13346 ASTM D2357
Cleaning agent	nitrilotriacetic acid (NTA)	< 0.1%	CNS 13105
Cleaning agent	perborate	< 0.1%	CNS 4986 JIS K8246

Cleaning agent	ethylenediamine tetraacetic acid (EDTA)	< 0.01%	ASTM D4954
Cleaning agent	alkylphenoethoxylate (APEO)	< 0.05%	Test method for nonylphenol and nonylphenol polyethoxylates, promulgated by the Ministry of Health and Welfare
Cleaning agent	Total volatile organic compounds	< 10 mg/kg	NIEA M711 CNS 15039-1 CNS 15039-2 US EPA 5021

\*: The test report shall provide evidence that the employed test methods have detection limits of less than 1/3 of the regulatory limits.

### 5. Packaging

The materials of the product, accessories and product packaging shall meet the requirements of the *Guidelines on Review of Applications for Qualified Environmental Protection Products*.

### 6. Labeling

- 6.1 The product or product packaging shall be labeled with all product ingredients, contents of substances restricted or banned by the product criteria, uses, and method of usage. The labeling of chemical ingredients shall be done by using chemical names, and shall not be substituted with common names, abbreviations or commercial names.
- 6.2 The Green Mark user shall note on the product packaging container that the product is for professional use only. The Green Mark user shall also provide information regarding instructions for proper product use and limitations of the products, including procedures for product use, dilution range, product placement and storage conditions, equipment usage, restrictions, emergency disposal, and proper treatment and disposal of empty product container.
- 6.3 The name, address and dedicated consumer service phone number of the Green Mark user shall be clearly printed on the product packaging container.
- 6.4 The product's packaging container shall bear a label reading "Greater Than 95% Biodegradability" and "Low Pollution".

### 7. Other Requirements

- 7.1 Sampling of the product shall be conducted by the representatives from both the Taiwan EPA registered inspection and testing organization and the product manufacturer together, at the site where the product is being sold, in a random manner; if necessary, the Taiwan EPA may also send its representative(s) to take part in the joint sampling at the product manufacturing site.

7.2 If the materials safety data sheet provided by the applicant contains a GHS hazard statement which is not allowed under this standard, but such a hazard may be resolved after a certain chemical reaction. If this is the case, the applicant may submit relevant evidence or test report and be exempted from the requirement of this standard after a document review confirmed the veracity of the case.

**Revision History:**

First revision: November 1, 2018