

Laundry Detergents

1. Scope

This standard is applicable to synthetic cleaning agents ("product") which meet the definitions of CNS 2477 and used for cleaning of clothing.

2. Terms and definitions

For the purpose of this standard, the following terms and definitions shall apply:

"Spray head" means a device which enables the user to push the liquid content of the container to the surface required cleaning in the form of water-jet or mist, through manually squeezing or pushing the spray-head. It does not refer to a squeeze head or high-pressure spray can.

3. Product characteristics

- 3.1 The biodegradability of the surface active agent(s) in the product shall have a measured value of greater than the specified value.
- 3.2 The product shall not contain fluorescent brightening agent, chlorine-containing bleach, formaldehyde, triclosan, chlorine-containing additives, and benzophenone UV absorbers. The measured contents of these aforementioned substances shall be below the specified limits.
- 3.3 The product's contents of total phosphorus, nitrilotriacetic acid (NTA), perborate, ethylenediamine tetraacetic acid (EDTA), and alkylphenolethoxylate (APEO) shall be below the specified limits.
- 3.4 The product shall have a pH range within the specified limits.
- 3.5 The product shall not contain substances or mixtures meeting the following hazard classifications of the EU Dangerous Substances Directive (67/548/EEC): (Risk Phrases) R20 to R29, R33, R39 to R41, R45 to R67; (Safety Phrases) S29, S56 to S57, S60, and S61. The applicant shall provide a complete list of product ingredients and compositions, as well as the ingredients' associated material safety data sheets

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(MSDSs) for review. The MSDS shall contain the ingredients' names, CAS Nos., and applicable classifications of risk phrases and safety phrases (in accordance with EU Dangerous Substances Directive (67/548/EEC) classifications).

4. Materials, accessories and components

The weights of the product container and content shall meet the following requirement. If the product has provided paper packaging box or refillable pouch made from a single plastic material, the following weight requirement does not apply:

Container type and content weight (g)	Container weight limit (g)	
Container has no spray-head and content weight less than 1200 g	\leq Content weight (g) x 0.07	
Container has spray-head and content weight less than 1200 g	\leq Content weight (g) x 0.07 + 30	
Content weight more than 1200 g	\leq Content weight (g) x 0.055	

5. Test methods and regulatory limits

The following test methods refer to the applicable national, international or

industry-specific testing methodology/standards with the following specified regulatory limits.

Applicable Content	Regulated Substance	Regulatory Limit	Referenced Test Method
Product ingredient	biodegradability of surface active agent	95%	CNS 4984
Product ingredient	fluorescent brightening agent	No fluorescent reaction	CNS 4986
Product ingredient	chlorine-containing bleach	0.01%	CNS 4986
Product ingredient	formaldehyde	15 ppm	NIEA R502 CNS 9538
Product ingredient	triclosan	5 ppm	NIEA R814
Product ingredient	chlorine-containing additive	0.01%	CNS 4986 ASTM D2357
Product ingredient	benzophenone UV absorber	5 ppm	CNS 13105
Product ingredient	total phosphorus	0.1%	CNS 4986
Product ingredient	nitrilotriacetic acid (NTA)	0.1%	ASTM D4954
Product ingredient	perborate	0.1%	CNS 4986

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	Product ingredient	ethylenediamine	0.01%	CNS 1706
		tetraacetic acid (EDTA)		
Product ingredient		alkylphenolethoxylate		CNS 4986
	(APEO)	0.05%	ASTM D2357	
Р	Product ingredient	рН	5-9	CNS 4897
		•	5-5	NIEA R208

6. Labeling

6.1 The product or its packaging shall be labeled with manufacturer name, address, product name, ingredients, contents of substances restricted or banned by the product criteria, uses, method of usage, weight or volume, batch number or manufacture date. 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 name, address and dedicated consumer service phone number of the Green Mark user shall be clearly printed on the product or packaging.
- 6.3 The product or its packaging shall bear a label reading "Biodegradability Greater Than 95% and Contain No Nonylphenol". The definition of biodegradability shall also be explained, so consumers may understand its meaning.

7. Notes

- 7.1 In the natural environment, nonylphenol (NP) is mainly formed through aerobic and anaerobic biological degradation of the metabolic products of nonylphenol ethoxylates (NPnEOs). As APEOs include NPnEOs, the above criteria have already excluded the precursors for NP formation. Thus the product will not result in NP formation, when it is being released to the environment post-consumption, and the objective of regulating NP may be achieved through regulating APEO.
- 7.2 The 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 to take part in the joint sampling at the product manufacturing site.

Revision History

First revision: May 30, 2001 Second revision: September 13, 2002 Third revision: December 20, 2004 Fourth revision: August 27, 2008 Fifth revision: November 16, 2009 Six revision: January 15, 2013