



# CHARTER UPDATE 2010: ASP SUBSTANTIATION DOSSIER: HOUSEHOLD MANUAL DISHWASHING (MDW) DETERGENTS - VERSION 1 JANUARY 2014 -

*A.I.S.E. is the voice of the Soaps, Detergents and Maintenance Products Industry in Europe. Its membership comprises of 34 National Association in 39 countries and 9 companies that are direct members. In total, A.I.S.E. represents more than 900 companies that are involved in the household market and/or in the Industrial & Institutional cleaning domain, thus representing the vast majority of the companies in this domain.*

## 1) Introduction

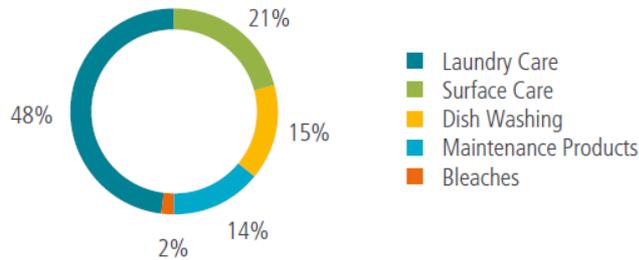
A.I.S.E. strongly believes that it has a key role to play in driving mainstream changes for more sustainable consumption and production patterns. In this spirit, it has developed and implemented over the last 15 years a number of voluntary initiatives aimed at the whole sector. The objective of these various initiatives is to help drive sustainability/environmental improvements for the majority of products in its sector, by steering all players towards more sustainable practices in the industry and helping to deliver substantial savings of resources to society.

Its main horizontal project is the **A.I.S.E. Charter for Sustainable Cleaning**. Launched in 2004, this voluntary initiative is a comprehensive life-cycle-based framework for promoting a common industry approach to sustainability improvement and reporting.

From the outset, the Charter has been seen as a living scheme, with a broad commitment to update it regularly. In October 2010, A.I.S.E. launched the “**Charter Update 2010**”. A key component of the Charter Update 2010 is the addition of a product dimension. The inclusion of a product dimension further strengthens the scheme by enabling it to more completely cover the whole life of a product in terms of sustainability, from manufacturing to end-use. This will also signal to consumers that a product is environmentally compatible, allowing them to make a more informed choice of products. This is achieved by creating “**Advanced Sustainability Profiles**” (ASPs) for each major product group. The ASPs are designed to determine a set of minimum criteria that a product must meet, in order to be considered as an example of a product with a good sustainability profile.

**This document provides details on the processes used to develop the Advanced Sustainability Profile for the product group “Household manual dishwashing detergents”.**

## 2) The market (EU, plus Norway and Switzerland)



Household	100%	Million Euro
Laundry Care	48	13,755
Surface Care	21	5,938
Dishwashing	15	4,263
Maintenance Products	14	3,857
Bleaches	2	674
<b>Total</b>	<b>100</b>	<b>28,487</b>

Source: A.I.S.E. Activity and Sustainability Report 2012-2013, Euromonitor International

### Dishwashing:

=> 15% of A.I.S.E. total household market value; the industry's second biggest market in Europe.

=> Market Value: 4.2 billion Euros in 2012

Proportion for the value of manual dishwashing detergents in this segment: about 43% i.e. about 1.8 billion Euros. (Source: Euromonitor International)

## 3) ASP principles

The principles applied to the setting of the ASP criteria are as follows:

1. The ASP criteria should represent a target that is **aspirational, but reasonably achievable by all using readily available technology**. Our vision is that products within the category should be able to achieve the ASP targets within a reasonable timeframe when companies make the deliberate decision to drive sustainable consumption and production patterns.
2. The ASP criteria will reflect as completely as possible the key drivers of reduced environmental impact (hot spots), as identified by Life Cycle Analysis (LCA).
3. The Advanced Sustainability Profile, like the Charter, is a living system, with the implicit intention to periodically review the criteria and thresholds in order to move the category in the direction of continuous improvement of sustainability.
4. The setting of ASP criteria must always follow the established evaluation and consultation process detailed in the next section.

## 4) Process for the development of an ASP for household manual dishwashing detergents

### 1. Identification of product category and installation of A.I.S.E. Task Force

The A.I.S.E. Sustainability Steering Group (SSG) proposed on 17 June 2010 to develop an ASP for household manual dishwashing detergents (for information: in parallel ASPs for automatic dishwashing detergents were being developed). The ASP Task Force; which was set up to develop such an ASP, met for the first time on 31 August 2010. It was composed of experts from nine companies, namely Colgate Palmolive, Dalli, Henkel, Jeyes, Luhns, McBride, P&G, ReckittBenckiser and Unilever. Work was coordinated by the A.I.S.E. Secretariat.

### 2. Development by the Task Force of ASP criteria and thresholds

Based on LCA (see chapter 5) the TF identified relevant LCA parameters. Between 2011 and 2013, several data collections on those parameters were organised by the A.I.S.E. secretariat. All nine companies represented in the TF provided data on a representative sample of the EU market<sup>1</sup>. It is on that basis that the calculations below have been made. The data was collected and aggregated under strict confidentiality by the A.I.S.E. secretariat.

### 3. Internal A.I.S.E. consultation and endorsement

This recommendation on the ASP and thresholds was presented for approval to the SSG on 3 September 2013, the A.I.S.E. Management Committee on 10 September 2013, the A.I.S.E. Legal Panel in September 2013 and the A.I.S.E. Board on 10 October 2013. In addition, this dossier was developed in order to substantiate in a transparent way the processes and the proposed thresholds.

### 4. Industry consultation and activation

The ASP and the substantiation dossier were subject to consultation with Charter member companies and the industry from 14 October 2013 to 18 November 2013. Companies were asked to comment/input on the relevance and technical feasibility of the proposed thresholds.

Based on the received input, these ASPs were finalised as part of the Charter and are made available to industry from 1 January 2014.

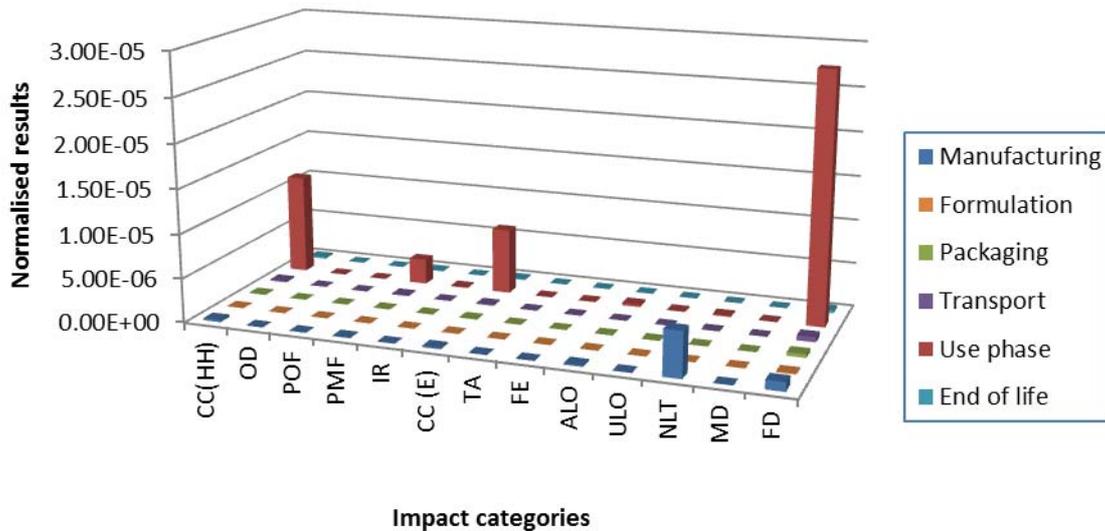
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<sup>1</sup> Data available at the A.I.S.E. secretariat.

## 5) ASP criteria and rationale

### Life Cycle Analysis

A Screening Life Cycle Analysis for a household manual dishwashing detergent (a product with 14% surfactant was selected, as this was currently considered to be most representative in the main markets across Europe) was carried out, in order to get an understanding of the environmental impacts of the various stages of the life cycle.



*Contribution of different life cycle stages of a household manual dishwashing detergent to the environmental impact categories (Normalised endpoint results for full sink scenario).*

The stages of the life cycle process considered were:

- Manufacturing
- Formulation
- Packaging
- Transport
- Use phase
- End of life

The impact categories evaluated were:

- Climate change
- Ozone depletion
- Photochemical oxidant formation
- Particulate matter formation
- Ionising radiation
- Terrestrial acidification
- Eutrophication
- Agricultural land occupation
- Urban land occupation
- Natural land transformation
- Metal depletion
- Fossil depletion

The Life Cycle Analyses for household manual dishwashing detergents in Europe show that the life cycle stage with the largest contribution to the environmental impact is the use phase, particularly the energy needed to heat water during manual dishwashing.



### **ASP criteria**

Given that manual dishwashing detergents end up as water-borne waste, it is essential that a more sustainable product poses a significantly reduced (or: minimised) risk for the environment. Therefore, all “down-the-drain” product categories must pass the Environmental Safety Check (ESC).

Using the above LCA as a starting point, the A.I.S.E. Task Force in charge of setting the ASP criteria for household manual dishwashing detergents worked on the following main components:

- activities at product level, under the direct control of manufacturers:
  - by determining a maximum dosage of ingredients per job
  - by determining a maximum level of packaging materials per job
  - by setting a minimum level of recycled content in primary and secondary packaging.
  
- activities at consumer level given that this represents the highest environmental impact:
  - providing on-pack guidance for the most sustainable product use (see annex ‘End User Information’)

Implicit in the ASP criteria is that a product must deliver an acceptable level of performance.

In order for a product to meet the criteria of the Advanced Sustainability Profile, it must meet the conditions in each and every domain as detailed below:

**ASP Criteria for household manual dishwashing detergents**

The following requirements in each of these domains must be fulfilled in order to reach Advanced Sustainability Profiles (ASP) status.

<p><b>Product formulation</b></p>	<p>Pass successfully Environmental Safety Check (ESC) on all ingredients</p> <p>AND</p> <p>Dosage ml/job (preparation of 5l of wash water): ≤ 5 ml</p>
<p><b>Packaging weight per job</b></p>	<p>Total (primary + secondary but excluding tertiary) packaging g/job: ≤ 0.7 g</p>
<p><b>Board packaging – recycled content</b></p>	<p>Minimum requirement: ≥ 60 %</p> <p>OR</p> <p>Where 100% of the board used is certified made from fibre sourced from sustainable forests under an endorsed certification standard such as FSC, SFI or PEFC: no minimum.</p>
<p><b>Materials other than board – recycled content</b></p>	<p>No minimum, but any recycled plastic content may be excluded from the calculation of total packaging weight per job.</p>
<p><b>End User Information</b></p>	<p>Safe use tips</p> <p>AND</p> <p>Dosage info on pack, either quantitative (in ml/job) or qualitative statement that minimises the risk for the consumer to overdose the product</p> <p>AND</p> <p>Manual dishwashing Cleanright Panel on-pack</p>
<p><b>Performance</b></p>	<p>Evidence has to be provided (in case of external verification organised by A.I.S.E.) that the product has been performance tested and reached a level acceptable to consumer.</p>



**Clarifications/Definitions:**

Dosage ml/job: The functional dosage is the amount of cleanser (ml) needed that is sufficient for 1 manual dishwashing job. Herein, 1 manual dishwashing job is defined as the cleaning of four normally soiled “place settings”, or twenty normally soiled dinner plates. Place setting specifications: taken from Stamminger, R.E. et al. (2007). Washing-up Behaviour and Techniques in Europe. Hauswirtschaft und Wissenschaft 1, p. 31-40. One place setting consists of the pieces: Dinner plate, Soup plate, Dessert dish, Cup, Saucer, Glass, Fork, Soup spoon, Knife, Teaspoon, Dessert spoon.

Packaging weight per job: Total (primary + secondary) packaging (g/job) - based on the volume weighted average for all SKUs of one brand variant with the same formulation per country. Variants of the brand which do not pass all other ASP category tests and/or are not intended to carry the ASP logo must be excluded from the calculation. Dosage devices – apart from closures – are not to be considered as packaging.

Primary/secondary/tertiary packaging: following definitions from the European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste:

- primary packaging, i. e. packaging conceived so as to constitute a sales unit to the final user or consumer at the point of purchase;
- secondary packaging, i. e. packaging conceived so as to constitute at the point of purchase a grouping of a certain number of sales units whether the latter is sold as such to the final user or consumer or whether it serves only as a means to replenish the shelves at the point of sale; it can be removed from the product without affecting its characteristics; SRB (shelf ready box) and AB (American box) are to be considered as secondary packaging.
- tertiary packaging, i. e. packaging conceived so as to facilitate handling and transport of a number of sales units or grouped packaging in order to prevent physical handling and transport damage.

Note: Packaging which functions both as secondary (case) and tertiary (transportation unit) packaging, intended to function as an in-store free-standing floor display unit, is regarded as tertiary packaging for the purpose of this definition.

Recycled: waste recycled after use

FSC: Forest Stewardship Council

SFI: Sustainable Forestry Initiative

PEFC: Programme for the Endorsement of Forest Certification

End User Information - dosage statement: The dosage information needs to be substantiated (in case of external verification organised by A.I.S.E.) with information to demonstrate it is understood by the consumer / encourages behaviour change towards minimising the environmental impact.



### ***Product formulation***

Based on the outcome of the Life Cycle Assessment, the experts identified the concentration of a product as one of the key factors, in order to reduce the environmental impact. Following industry experts' opinion, a dosage of 5 ml in order to prepare 5 l of wash water (job – full sink scenario) currently appears as dosage that distinguishes a concentrated household manual dishwashing detergent from a non-concentrated one when looking at the market. A survey of products, representing the market of household manual dishwashing detergent in Europe has indicated that about 50 % of those products would meet the respective threshold. Those experts who were involved in the ASP criteria and thresholds development (see page 1) have judged this level of ambition as a fair amount of products in the market that comply with the criteria. The relevance of 5 ml per job was confirmed as one outcome of the consultation.

### ***Packaging***

Based on the outcome of the Life Cycle Analyses, the experts identified the reduction of packaging as a key factor, in order to reduce the overall environmental impact. A threshold of 0.7 g per 5ml of product dosage was proposed for consultation on the basis that those are achievable using readily available technology. This threshold was confirmed in the consultation.

### ***Packaging recycled content***

The data provided to A.I.S.E. of current recycled board packaging content used by several major manufacturers, representing the majority of the manual dishwashing detergent market, indicates that the percentage of recycled board packaging material varies. A threshold of 60 % has been identified as achievable by manufacturing companies, using conventional technologies yet leading to environmental benefit.

A further option in order to fulfil this ASP criteria has been launched in 2012 for the ASPs for automatic dishwashing detergents, the revised ASP for solid laundry detergents, the ASPs for dilutable all purpose cleaners and for the trigger spray glass/window, bathroom, kitchen and all purpose (for hard surfaces) cleaners (all household): the complete amount of packaging virgin board has to come from fibre sourced in a managed way, using certified forest content from an endorsed certification standard such as FSC, SFI or PEFC (FSC: Forest Stewardship Council; SFI: Sustainable Forestry Initiative; PEFC: Programme for the Endorsement of Forest Certification). This was confirmed as one outcome of the consultation.

### ***End user information***

Considerable savings, both environmentally and economic, could be reached through better sustainable consumer behaviour. Thus, it is also key to continue providing the consumers with advice about the use of manual dishwashing detergent. Companies will be requested to use the 'Manual dishwashing Cleanright Panel', introduced by A.I.S.E. in 2013 (see annex), the A.I.S.E. safe use tips and dosage info on pack. Evidence has to be provided that the product has been performance tested and fulfils a level acceptable to consumers consistent with claims made. Those elements re end user information were confirmed in the consultation.



## 6) Value of industry self-regulation

A.I.S.E. has a long tradition of successful voluntary initiatives initiated for the whole industry (e.g. A.I.S.E. Code of Good Environmental Practice, A.I.S.E. Charter for Sustainable Cleaning, Laundry Sustainability Projects, Product Resource Efficiency Projects), which have all achieved significant savings.<sup>2</sup>

In the specific case of a sustainability programme for household dishwashing detergents, the life cycle analyses (see section 5 of this report) demonstrate that:

- Environmental Safety of ingredients
- Optimal use of the product
- Detergent concentration (formulation and packaging)

... are the critical parameters to be addressed. It is A.I.S.E.'s view and experience that in these specific circumstances, industry association-led initiatives are more reliable than "business as usual"/individual company led initiatives for the following reasons:

- Environmental Safety; the ESC tool offers a common set of data that the whole industry can have access to, and against which they can benchmark their formulation; this offers a common level playing field for all market players in a free, public way that is also transparent to all stakeholders.
- Optimal use of product: Common industry communication to drive sustainable consumption, in line with other A.I.S.E activities make a lot of sense, and also have the value of potentially being further relayed to the public by other stakeholders especially if they are industry led. This is because such an approach can build on and benefit from a coordinated communication campaign with consistent messages that can only be possible in such a context.
- Detergent concentration: By raising the industry standards to the proposed levels of concentrations, this will help move the whole market to such standards in a self-regulatory way, as successfully as regulation whilst leaving innovation potential for companies.

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<sup>2</sup> After the 5 years of the "Code" initiative (ending 2001), the industry achieved: energy consumption – 6.4 % reduction per wash; laundry detergent use – 7.9 % reduction per capita, 16.0 % reduction per wash; packaging use – 6.7 % reduction per capita, 14.9 % reduction per wash; poorly biodegradable ingredients – 23.7 % reduction per capita, 30.4 % reduction per wash.

From 2006 to 2012, Charter member companies achieved savings on: Energy consumed per tonne of production: -19 %; CO<sub>2</sub> emitted per tonne of production: -24 %; Waste: -6 %.

## 7) Expected benefits

With the implementation of the Advanced Sustainability Profile for household dishwashing detergents, the following potential benefits can be expected EU wide:

- Reassurance that ingredients in the product formulation have an environmental concentration at or below the predicted no-effect level for aquatic toxicity
- Optimal use of ingredients due to product compaction/concentration (mainly due to removal of water):  
→ **Expected benefits: 106,000 tonnes of ingredients**<sup>3</sup>
- Optimal use of packaging due to product compaction/concentration (mainly due to removal of water):  
→ **Expected benefits: 12,600 tonnes of packaging**<sup>4</sup>
- Optimisation on transport:  
→ **Expected benefits: 5,930 truck journeys**<sup>5</sup> due to product compaction and reduction of packaging
- Reassurance of companies' responsibility on sustainability
- Promotion of sustainable behaviour of end users

<sup>3</sup> This calculation is based on Euromonitor figures (in 2012, the retail volume of manual dishwashing detergents was 927.1 million liters; see also chapter 2) and experts' assumptions: Prior to the implementation of Charter ASPs for MDW detergents, it is estimated that about 50 % of the overall product volume do not fulfill the ASP requirements. For our calculation on potential ingredients' savings we assume that 30 % of regular products will be reformulated in order to fulfill the Charter ASP requirements.

<sup>4</sup> Based on data collection and aggregation of Euromonitor market overview data.

<sup>5</sup> 1 truck loaded with 20 tons.



## 8) Timing

- From 14 October till 18 November 2013: Industry consultation on ASPs for household manual dishwashing detergents
- By 23 December 2013: Finalisation of ASP package
- By 1 January 2014: Availability of ASP to the industry
- 1 January 2014 till 31 December 2014: Preparation period for implementation of ASP
- As from 1 January 2015: Activation – products complying with Charter ASP requirements for household manual dishwashing detergents can start to appear on shelves with ASP logo

## ANNEX: END USER INFORMATION

The following versions of the Manual dishwashing Cleanright Panel can be used on pack. Professional graphic files and guidelines are available on [www.aise.eu/end\\_user\\_info](http://www.aise.eu/end_user_info).

### 1. Manual dishwashing Cleanright Panel with three or four sentences

#### Option a1)

**TIPS FOR SAVING WATER, ENERGY, CO<sub>2</sub> AND MONEY**

Scrape instead of pre-rinsing	Use the dosage instructions	Do not rinse under running water	Save packaging - recycle

WWW.CLEANRIGHT.EU

A.I.S.E. ©

#### Option a2)

**TIPS FOR SAVING WATER, ENERGY, CO<sub>2</sub> AND MONEY**

Scrape instead of pre-rinsing	Use the dosage instructions	Do not rinse under running water

WWW.CLEANRIGHT.EU

A.I.S.E. ©

#### Option b1)

Scrape instead of pre-rinsing	Use the dosage instructions	Do not rinse under running water	Save packaging - recycle

WWW.CLEANRIGHT.EU

A.I.S.E. ©

#### Option b2)

Scrape instead of pre-rinsing	Use the dosage instructions	Do not rinse under running water

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Option c1)

**TIPS FOR SAVING WATER, ENERGY, CO<sub>2</sub> AND MONEY**



Scrape Instead of pre-rinsing      Use the dosage instructions      Do not rinse under running water      Save packaging - recycle

**WWW.CLEANRIGHT.EU**

A.I.S.E.©

Option c2)

**TIPS FOR SAVING WATER, ENERGY, CO<sub>2</sub> AND MONEY**



Scrape Instead of pre-rinsing      Use the dosage instructions      Do not rinse under running water

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Option d1)

**TIPS FOR SAVING WATER, ENERGY, CO<sub>2</sub> AND MONEY**



Scrape Instead of pre-rinsing      Use the dosage instructions      Do not rinse under running water      Save packaging - recycle

**WWW.CLEANRIGHT.EU**

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Option d2)

**TIPS FOR SAVING WATER, ENERGY, CO<sub>2</sub> AND MONEY**



Scrape Instead of pre-rinsing      Use the dosage instructions      Do not rinse under running water

**WWW.CLEANRIGHT.EU**

A.I.S.E.©

2. 'Silent' Panel with three or four icons

Option a1)



Option a2)



Option b1)



Option b2)



### 3. Sentence with tips and reference to Cleanright website

Option a)



Option b)



Option c)



Option d)



Option e)



Option f)

