



CHARTER UPDATE 2010: ASP SUBSTANTIATION DOSSIER: HOUSEHOLD SOLID DETERGENTS – 1ST REVISION - 30 MAY 2012 -

A.I.S.E. is the voice of the Soaps, Detergents and Maintenance Products Industry in Europe. Its membership comprises of 37 National Association in 42 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

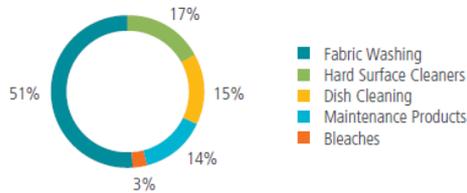
A.I.S.E. strongly believes that it has a key role to play in driving mainstream changes for more sustainable consumption and production patterns. In this spirit, it has developed and implemented over the last 14 years a number of voluntary initiatives aimed at the whole sector. The objective of these 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.

It is one of the Charter principles that the ASP system, 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. Due to recent developments on further product compaction of solid laundry detergents, the A.I.S.E. Sustainability Steering Group agreed on 17 October 2011 to revise the ASP for this product category; the first version of this ASP had been made available to industry on 1 July 2010. **This document provides details on the processes used to revise the ASP for the product group “Solid laundry detergents (including tablets) for household use”.**

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



A. Household	100%	Total EU 27+CH+NO	
		million euros	%
Fabric Washing	51%	14.500	0,8
Hard Surface Cleaners	17%	4.893	1,3
Dish Cleaning	15%	4.183	1,4
Maintenance Products	14%	3.987	1,5
Bleaches	3%	896	-2,8

Results: Aggregated Nielsen data

Fabric Washing:

=> 51 % of A.I.S.E. total household market value; the industry's biggest market in Europe.

=> Market Value: 14.5 billion Euros in 2010

Estimated proportion for the value of solid laundry detergents: about 35 % i.e. about 5.0 billion Euros.

(Source: Euromonitor International)

Source: A.I.S.E. Activity and Sustainability Report 2010-2011

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 the product within the category should be able to achieve the ASP targets within a reasonable timeframe.
2. The ASP criteria 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, as detailed in the next section.

4) Process for the development of the ASP for solid laundry 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 October 2011 to revise the ASP for solid laundry detergents. The ASP Task Force which was set up to revise such ASP, met for the first time on 28 November 2011. It was composed of experts from six companies, namely Danlind, Henkel, McBride, Mifa, P&G, and Unilever. Work was coordinated by the A.I.S.E. Secretariat.

The ASP for solid laundry detergents has been originally developed in relation to the Laundry Sustainability Project 2 (LSP2) on compaction which set a maximum recommended dosage of 85g/135 ml per wash (see www.aise.eu/lsp2). LSP2 is coming to an end on 31 March 2012. Building on its environmental achievements (15 companies participated in the project), A.I.S.E. is launching a new compaction project, the Product Resource Efficiency Project (PREP-P3) which will recommend a maximum recommended dosage of 75g/115 ml per wash. The project will be open for commitment on 1 July 2012 and companies will be allowed to place on the market their "PREP-P3 labeled" products as from 1 July 2013.

In view of the close relation between the ASP and the LSPs/PREPs, it becomes necessary to revise the ASP – product formulation criteria in parallel. Given the work carried out on the product formulation criteria it was also decided to revise the overall packaging weight criteria.

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

Based on an existing generic Life Cycle Analysis [LCA] (see chapter 5) the TF identified relevant LCA parameters. It also made use of the work done in parallel for the "Product Resource Efficiency Project" PREP-P3 initiative, namely the selection of a threshold for dosage based on an industry consultation which confirmed its technical feasibility.

Concerning a threshold for packaging, a consultation was organised by the A.I.S.E. Secretariat in January/February 2012. Four companies represented in the TF provided input on a representative sample of the EU market.

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

This recommendation on the ASPs and thresholds was presented for approval to the SSG on 17 February 2012, the A.I.S.E. Legal Panel via email consultation between 15 March and 4 April 2012 and the A.I.S.E. Board on 26 April 2012. 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

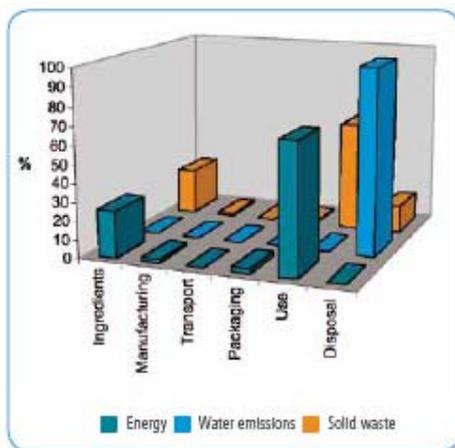
The ASPs and the substantiation dossier were subject to consultation with Charter member companies and the industry from 27 April till 21 May 2012. Companies were asked to comment/input on the relevance and technical feasibility of the proposed thresholds.

Based on the received input, these ASPs were finalised as part of the Charter and are made available to industry from 1 July 2012.

5) ASP criteria and rationale

A generic Life Cycle Analysis (LCA) on solid laundry detergents was carried out before the Charter ASP targets were set, to get an understanding of the environmental impacts of the various stages of a detergent's life cycle.

NB: Work on an updated screening LCA has been initiated; this is currently being carried out by the consultancy PRé and will be included here as soon as it is available. However, taking into account existing company LCAs for this product category, LCA experts from the A.I.S.E. network expect that the overall outcome will not differ much from that of the LCA to which it is referred below and which had been used for the development of the 1st ASP version.



Life Cycle Analysis of a Generic Fabric Washing Powder (normalised on a per wash basis). Source A.I.S.E.

The stages of the process considered were:

- ingredients extraction / production
- powder production
- packaging
- distribution
- use
- disposal

and the parameters evaluated were:

- energy consumption
- water emissions
- solid waste produced.

The analysis confirms that the three most important factors in Life Cycle Analysis for solid laundry detergents are as follows:

1. The most significant impact on the environment is in the use and disposal phases of the product's life, due to the significant amounts of energy and water consumed by the washing machine. Therefore any LCA based criteria must take usage into account.
2. The second most important factor to reduce environmental impact is through the reduction in resources used to manufacture the product. By concentrating or compacting solid laundry detergents, chemical use is reduced and this delivers significant savings in energy (hence CO₂) and waste, as well as delivering substantial savings in freight as more product can be carried on one truck.
3. Given that laundry detergents end up as water-borne waste, it is essential that a sustainable product poses no risk for the environment. Therefore, all "down-the-drain" product categories must pass the Environmental Safety Check (ESC).

Using the above life-cycle analysis as a starting point, the A.I.S.E. Task Force in charge of setting the ASP criteria for solid laundry detergents confirmed the relevance of the following main components, which had been considered when the 1st version of ASP for solid laundry detergents was developed:

- activities at product level, under the direct control of manufacturers:
 - by determining a maximum dosage of ingredients per standard wash
 - by determining a maximum dosage of packaging materials per standard wash
 - by setting a minimum level of recycled content in primary and secondary packaging.
 - by allowing low temperature wash ($\leq 30^{\circ}\text{C}$)
- activities at consumer level given that this represents the highest environmental impact:



- providing on-pack guidance for the most sustainable product use (e.g. low temperature washing)

Implicit in the ASP criteria is that a product must deliver an acceptable level of performance at low washing temperatures ($\leq 30^{\circ}\text{C}$).

In order for a product to meet the ASP, it must meet the conditions in each and every domain as detailed below:

ASP criteria for household Solid Laundry Detergents (including tablets)

The following requirements in each of these domains (i.e. product formulation, packaging and end-use information) should be fulfilled in order to reach Advanced Sustainability Profile (ASP) status.

<p>Product formulation</p>	<p>Pass successfully Environmental Safety Check (ESC) on all ingredients</p> <p>AND</p> <p>Dosage g/job: $\leq 75 \text{ g}$</p> <p>AND</p> <p>Dosage ml/job: $\leq 115 \text{ ml}$</p>
<p>Overall packaging weight</p>	<p>Total (primary + secondary but excluding tertiary) packaging g/job: $\leq 6.5 \text{ g}$</p>
<p>Board packaging – recycled content</p>	<p>Minimum requirement: $\geq 60 \%$</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>Materials other than board – recycled content</p>	<p>No minimum, but any recycled plastic content may be excluded from the calculation of overall packaging weight per job</p>
<p>Wash temperature</p>	<p>Ability to wash at $\leq 30^\circ \text{ C}$ indicated on pack</p>
<p>End User Information</p>	<p>End-user info on-pack: Laundry Cleanright (former Washright) Panel (see Annex of ASP criteria document) Safe Use tips</p>
<p><i>Performance</i></p>	<p><i>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 consumers consistent with claims made.</i></p>



Clarifications/Definitions:

Job: following the Detergent Regulation EC 648/2004 the “standard washing machine loads are 4,5 kg dry fabric for heavy-duty detergents and 2,5 kg dry fabric for low-duty detergents”.

Ingredients per job/ heavy-duty detergents: based on medium water hardness and normally soiled fabric

Ingredients per job/ low-duty detergents: based on medium water hardness and lightly soiled fabric

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 packagings 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.

Packaging re-cycled content: in countries where re-cycled board is not available and a use of it would be a disadvantage for sustainable reasons, the use of re-cycled board is not required.

Recycled: waste recycled after use

FSC: Forest Stewardship Council

SFI: Sustainable Forestry Initiative

PEFC: Programme for the Endorsement of Forest Certification



Product formulation

Based on the outcome of the Life Cycle Analysis, the LCA experts identified the concentration of a product as one of the key factors, in order to reduce the environmental impact. Recognising that there is an opportunity to continue to extend the sustainability benefits with regard to the product formulation, the A.I.S.E. Sustainability Steering Group agreed that it would be appropriate to take another step towards. Building on the first Charter ASP for solid laundry detergents, which had been launched in July 2010 and for which a threshold for dosage had been set at 85g/135 ml, it is industry experts' opinion, that a dosage of 75g/115ml appears now to be as setting a right balance between the aim to reach environmental savings and the possibility to achieve it through conventional technology available to all companies, including SMEs. The relevance of 75g/115ml per wash threshold was confirmed as one outcome of the consultation.

Packaging

Taking into account the outcome of the life-cycle analysis, packaging was identified as a further key factor, in order to reduce the environmental impact. In proportion to the decreased dosage threshold, a threshold of 6.5g for overall packaging per job has been proposed by industry experts. The threshold of 6.5 g per wash was confirmed as one outcome of the consultation.

Packaging recycled / sustainably sourced content

With regard to recycled content in packaging, a threshold of 60 % has been identified as still achievable by manufacturing companies, using conventional technologies yet leading to environmental benefit.

As a further consultation outcome, a second option was added in order to fulfil this ASP criteria: 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).

End user Information

As figured out in the life-cycle analysis, the most significant impact on the environment is in the use and disposal phases of the product's life, due to the significant amounts of energy and water consumed by the washing machine.

In April 2011, A.I.S.E. commissioned a consumer survey across more than 5,000 consumers in 23 different countries about their current washing habits (a similar survey was run at the end of 2008). This survey showed that there is still significant progress to be achieved in the way consumers wash. For instance:

- Only 56% of washing machine loads are full (compared to 49% in 2008).
- The average wash temperature is 41.0°C (compared to 42.6°C in 2008).
- 32% of loads are washed at 30°C or lower (compared to 29% in 2008).
- Only 69% of consumers indicate that they are aware of the dosing instructions (compared to 76% in 2008).

Considerable savings, both environmentally (water, energy, CO₂, chemicals), and economic (financial savings for consumers due to correct dosing and efficient use of the appliance), could be reached through better sustainable consumer behaviour. In addition to formulating products that are compact and efficient at low temperature, it is also key to continue providing the consumers advice about wash parameters and correct dosage. Within this revised ASP criteria framework, companies are also be requested to use the Laundry Cleanright (former Washright) Panel, which had been introduced by A.I.S.E. in 1998 and revised in 2008 (see details in annex 2 of advanced sustainability profiles), and to indicate the ability to wash at $\leq 30^{\circ}$ C on pack. Evidence has to be provided that the product has been performance tested and reached a level acceptable to consumers consistent with claims made. This was 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, version 2005, Laundry Sustainability Projects), which have all achieved significant savings.¹

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:

- 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.
- 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 products: Common industry communication to drive sustainable consumption, in line with other A.I.S.E activities such as the Washright campaign for laundry 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.

Moreover the potential of such initiatives has been increasingly recognized by the European Commission to the point that it has been explicitly addressed in the SCP/SIP Action Plan.

¹ 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 2010, Charter member companies achieved: Chemicals covered by HERA: +10 %; Energy consumed per tonne of production: -13 %; CO₂ emitted per tonne of production: -14.3 %; Waste: -7.5 %; Water: -2.8 %; Products with at least two safe use icons: +129 %.

7) Expected benefits

With the implementation of the Advanced Sustainability Profile for solid laundry detergents the following benefits are 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:
→ **Expected benefits: 116,000 tonnes of ingredients²**
- Optimal use of packaging due to product compaction/concentration:
→ **Expected benefits: 8,300 tonnes of packaging material.**
- Optimisation on transport
→ **Expected benefits: About 5,900 truck journeys** due to reduction of product volume

8) Timing

- From 27 April till 21 May 2012: Industry consultations on revised ASP for solid laundry detergents
- By 8 June 2012: Finalisation of revised ASP documentation
- By 1 July 2012: Availability of revised ASP to the industry
- 1 July 2012 till 30 June 2013: Preparation period for implementation of revised ASP
- As from 1 July 2013: Activation – products complying with revised ASP requirements for solid laundry detergents can start to appear on shelves with ASP logo
- In parallel a closing down period of 6 months (1 July - 31 December 2013) will ensure transition between “old” (issued in July 2010) and “revised” ASP. Within this period companies shall stop producing “old ASP products”.
- By 30 June 2014 companies will no longer place “old ASP products” on the market.

² In the context of the aforementioned A.I.S.E. PREP-P3 project, an LCA Expert Working Group has developed a preliminary evaluation based on the hypothesis of compacting and concentrating the current “regular” powder detergents to a level that would allow obtaining a performance equivalent to today’s products with dosages which are not greater than 75 g/wash and 115 ml/wash.