



Content

Day 1: Tuesday, 20th January 2015

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Introduction

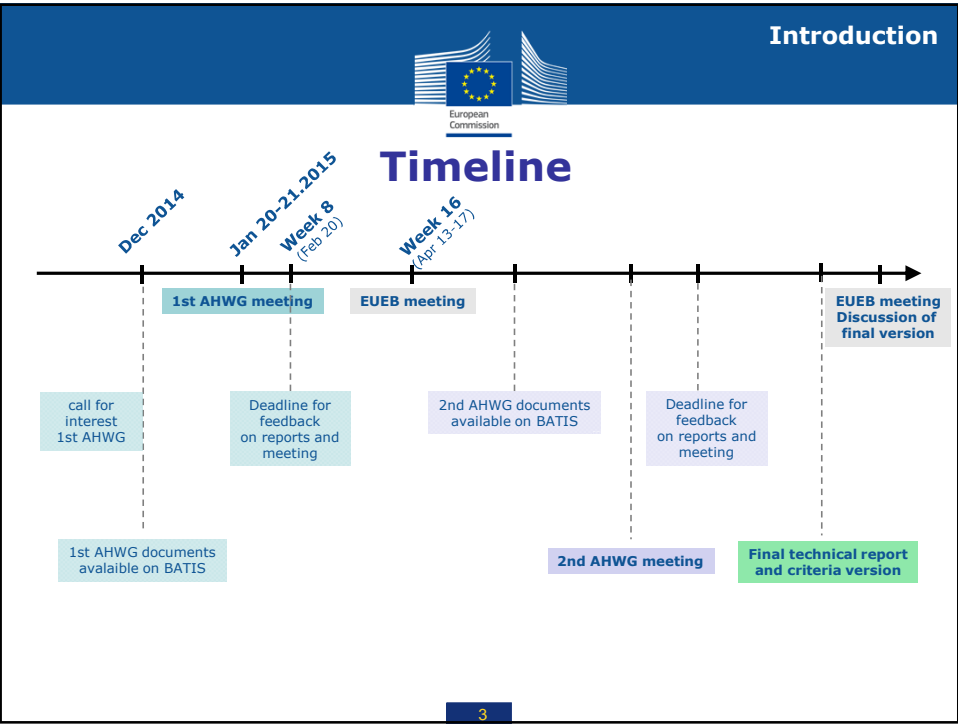


Current EU Ecolabels

The "detergents and cleaning products" group is made up of:

Product group name	Recent decision number and publishing date
Domestic laundry detergents	Commission Decision 2011/264/EU of 28 April 2011
Industrial and institutional laundry detergents	Commission Decision 2012/721/EU of 14 November 2012
Detergents for dishwashers	Commission Decision 2011/263/EU of 28 April 2011
Industrial and institutional automatic dishwasher detergents	Commission Decision 2012/720/EU of 14 November 2012
All-purpose cleaners and sanitary cleaners	Commission Decision 2011/383/EU of 28 June 2011
Hand dishwashing detergents	Commission Decision 2011/382/EU of 24 June 2011

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Introduction

European Commission

Focus areas for revisions (non-exhaustive)

Criteria	LD	IILD	DD	IIDD	APC	HDD
Scope and definition	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Reference dosage	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Dosage requirements	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Toxicity to aquatic organisms: Critical Dilution Volume (CDV)	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Biodegradability of organics	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Biodegradability of surfactants	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Specified excluded ingredients	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Hazardous substances and mixtures	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Biocides	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Corrosive properties	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
VOCs	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Enzymes	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Phosphorus (Inc. phosphate ban)	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Weight/utility ratio (WUR)	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Design for recycling	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Fitness for use	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Points system	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Consumer information	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration
Information on EU Ecolabel	Existing criterion	Area under consideration	Existing criterion	Area under consideration	Existing criterion	Area under consideration

Existing criterion Area under consideration

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Introduction

Harmonisation of criteria

The current texts were developed at different times resulting in different approaches and wording being used for similar or identical criteria.

Table 1 Current structure of the EU Ecolabels related to the detergents product groups

Criterion	LD	IILD	DD	IIDD	APC	HDD
1	Dosage requirement	Dosage information	Total chemicals	CDV	CDV	CDV
2	CDV	CDV	Restricted substances	Biodegradability	Biodegradability	Biodegradability
3	Biodegradability	Biodegradability	CDV	Restricted substances	Restricted substances	Restricted substances
4	Restricted substances	Restricted substances	Biodegradability	Packaging	Fragrances	Fragrances
5	Packaging	Packaging	Washing performance	Washing performance	VOC	Corrosive properties
6	Washing performance	Washing performance	Packaging	Automatic dosing system	Phosphorus	Packaging
7	Points	Automatic dosing system	Consumer information	Consumer information/information on EU Ecolabel	Packaging	Washing performance
8	Consumer information	Consumer information/information on EU Ecolabel	Information on EU Ecolabel		Washing performance	Consumer information
9	Information on EU Ecolabel				Consumer information	Information on EU Ecolabel
10					Information on EU Ecolabel	
11					Professional training	

→ Requires case-by-case study to see to what extent harmonisation is possible

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Introduction

Harmonisation of criteria

Table 2 Proposed structure of the EU Ecolabels related to the detergents product groups

Criterion	LD	IILD	DD	IIDD	APC	HDD
1	Dosage requirement	CDV	Dosage requirement	CDV	CDV	CDV
2	CDV	Biodegradability	CDV	Biodegradability	Biodegradability	Biodegradability
3	Biodegradability	Sustainable sourcing of palm oil, etc.	Biodegradability	Sustainable sourcing of palm oil, etc.	Sustainable sourcing of palm oil, etc.	Sustainable sourcing of palm oil, etc.
	Sustainable sourcing of palm oil, etc.	Restricted substances	Sustainable sourcing of palm oil, etc.	Restricted substances	Restricted substances	Restricted substances
4	Restricted substances	Packaging	Restricted substances	Packaging	VOC	Corrosive properties
5	Packaging	Fitness for use	Packaging	Fitness for use	Packaging	Packaging
6	Fitness for use	Automatic dosing systems	Fitness for use	Automatic dosing systems	Fitness for use	Fitness for use
7	Points (if kept)	Consumer information/information on EU Ecolabel	Consumer information/information on EU Ecolabel	Consumer information/information on EU Ecolabel	Consumer information/information on EU Ecolabel	Consumer information/information on EU Ecolabel
8	Consumer information/information on EU Ecolabel				Professional training (if not merged with "consumer information")	

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Summary on market analysis

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Summary on market analysis

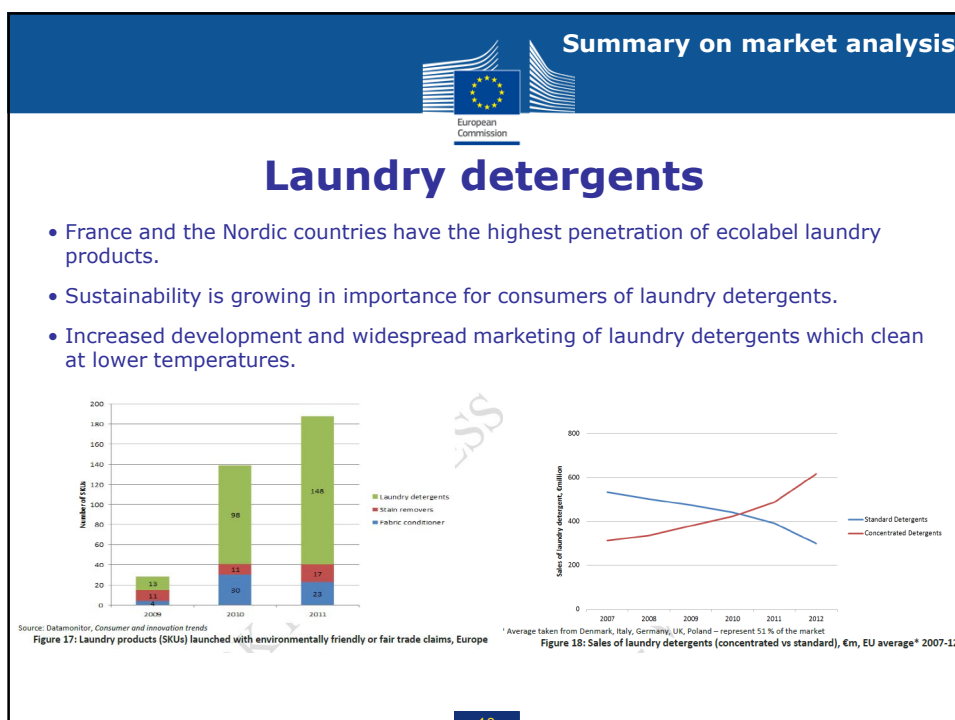
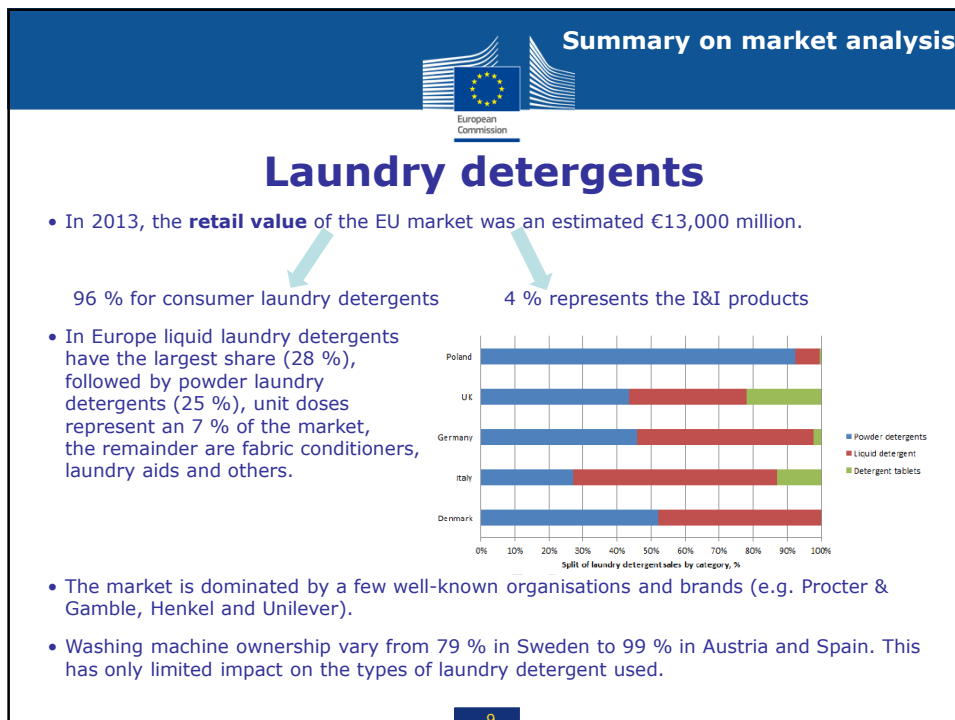
Objectives:

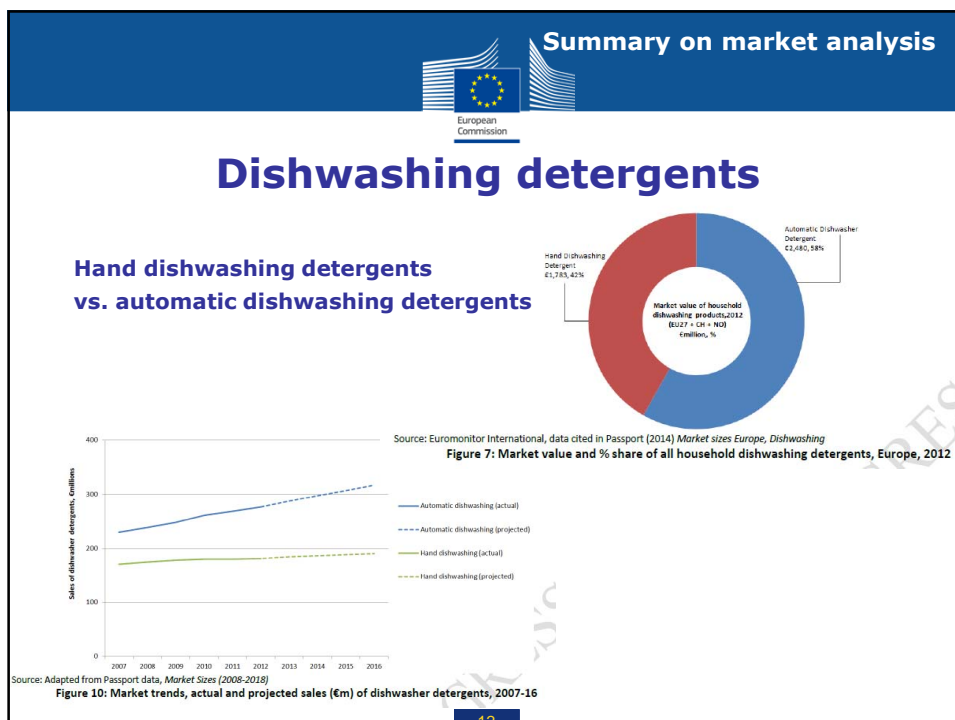
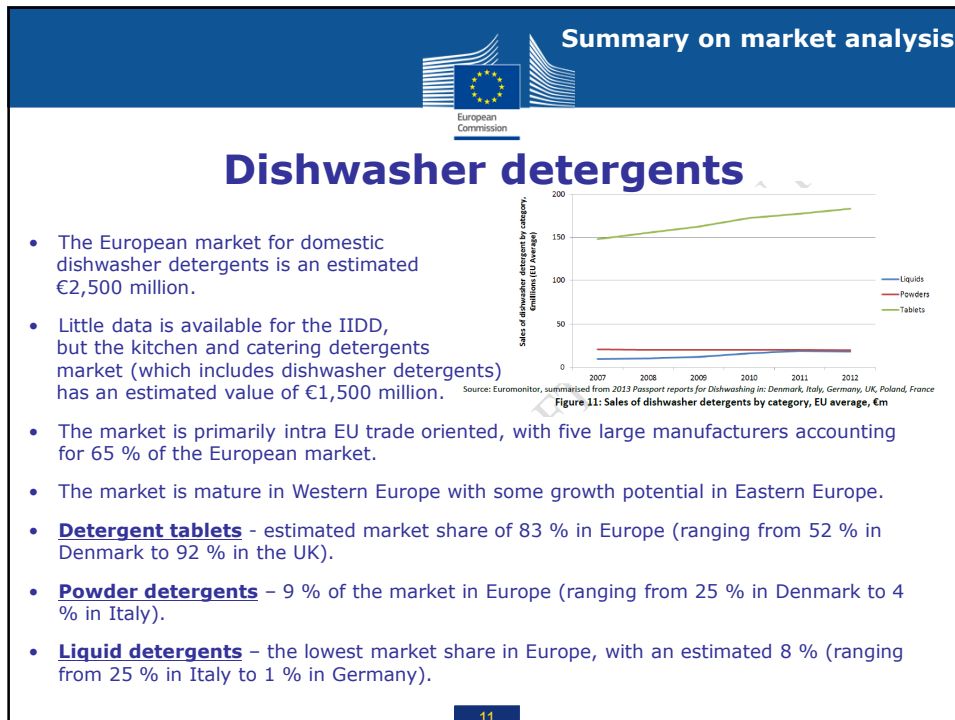
- General characterisation of the European market for the product group under study.
- Identifying significant changes in the market for detergents and cleaning products since the last revision of the EU Ecolabel criteria.

Performing the analysis:

- A desktop study using a variety of available literature and statistical databases such as Datamonitor, Mintel and Euromonitor data and reports.
- The market analysis covers the period 2010-14 and includes a market forecast to 2015-16.

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Summary on market analysis

Hand dishwashing detergents

- The total retail value of the EU market for HDDs is €1.8 billion.
- The market is dominated by a small number of large manufacturers, including Reckitt Benckiser Plc, Procter & Gamble, Henkel, Unilever and Colgate-Palmolive Co.
- The HDD market is mainly domestic.
- Innovation in the HDD market is relatively limited, and is primarily focused on adding additional functionality to the product.
- Sustainability in the cleaning products market is becoming important (however not yet widely spread).
- Innovations in the sustainable offerings include an increased use of green/plant-based chemicals and a focus on minimising packaging.

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Summary on market analysis

All-purpose cleaners and sanitary cleaners

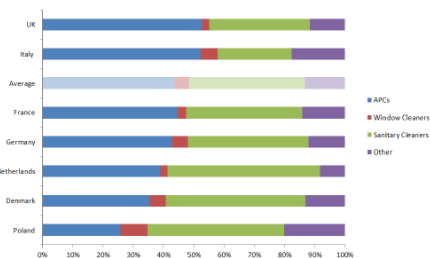
Table 19: EU Overview, market size (retail value)

	Total EU retail value, €	Percentage
Surface care	€4.2 bn (€4,232,000,000)	74 %
Toilet care	€1.5 bn (€1,506,100,000)	26 %
Total (Hard surface cleaning)	€5.7 bn (€5,738,100,000)	

Source: Passport (Euromonitor) Market sizes for surface care and toilet care

* The surface care category includes window cleaning – see Table 18 for further details.

- Industrial cleaning products market is valued at an estimated 18 % of the total market value for all detergents and maintenance products (AISE, 2014).



All-purpose cleaners 26-53 %

Window cleaners 2-9 %

Sanitary cleaners 24-50 %

Other 8-20 %

Source: Data from Passport - Euromonitor country reports on surface care (2008-2013) & country reports on toilet care (2008-2013)

Figure 2: Percentage split of sales (€ million) of hard surface cleaning products, by country, 2013



All-purpose cleaners and sanitary cleaners

- The market is expected to continue to grow – with an estimated 14 % increase in total sales value in surface care, and 20 % increase in toilet care by 2018.
- The majority of the market is dominated by a small number of large manufacturers, including: SC Johnson, Colgate-Palmolive Co, Unilever, Procter & Gamble, Henkel and Reckitt Benckiser Plc.
- Sustainability in the cleaning products market is becoming important.

Innovations in the sustainable offerings include an increased use of green/plant-based chemicals, an increase in concentrated products and a focus on minimising packaging.



Summary on technical analysis

→ Analysis of environmental performance of detergents and cleaning products.

The main objective is to identify the environmental hot spots across the whole life cycle of analysed products.

This analysis incorporates:

- an overview of technological aspects – production and ingredients
- a review of existing LCA studies
- a review of non-LCA impacts
- a bespoke LCA analysis

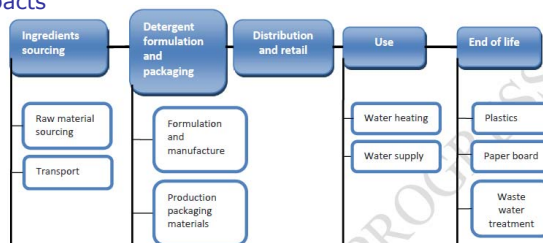


Figure 24: Schematic representation of laundry detergent life cycle

Laundry detergents

- The life cycle stage with the largest contribution is the use phase, particularly the energy needed to heat the water for the wash cycle.
- For some impact categories, the sourcing of raw materials and end-of life phase are important.

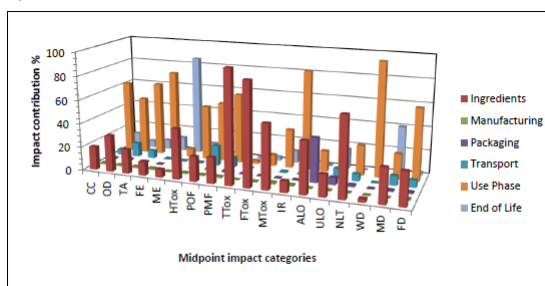


Figure 1: Impact contribution of different life cycle stages of a laundry detergent



Laundry detergents

Summary of findings from revised studies

Although the scopes and goals of the reviewed LCA studies vary, most of them draw similar conclusions.

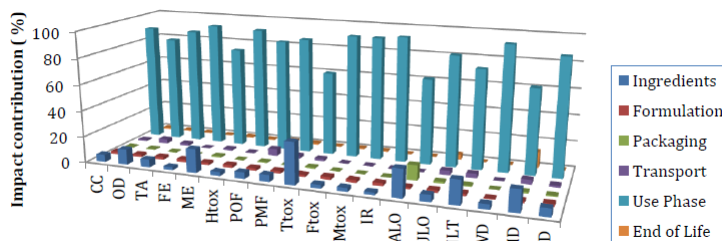
From a life cycle perspective the major environmental impacts associated with laundry detergents are due to:

- The energy used for heating the washing water during the use stage. This has an impact in other categories such as fossil fuel depletion and global warming potential.
- The extraction and processing of raw materials that cause impacts on categories such as mineral depletion, land use and energy use.
- The emissions to the environment after use. The discharge of wastewater has impacts on eutrophication while the impacts due to the end-of-life of packaging materials depend on their possible scenarios.



Dishwasher detergents

The results of the LCA have shown that the highest environmental impacts are associated with the use phase and the ingredients used.



Dishwasher detergents

Summary of findings from revised studies

- The most significant impacts on the environment occur during the use phase. This is mainly due to the significant amounts of energy and water consumed by the dishwasher.
- The second most important impact is due to the use/depletion of resources used to manufacture the product.
- The most notable primary and secondary hotspots are as follows:
 - Electricity used at home to power dishwashing machines is a key driver of energy use (and GHG emissions)
 - Water use in domestic dishwashers (and subsequent wastewater treatment)
 - Energy use in the production of key ingredients and detergent manufacture process.
 - Ingredients use

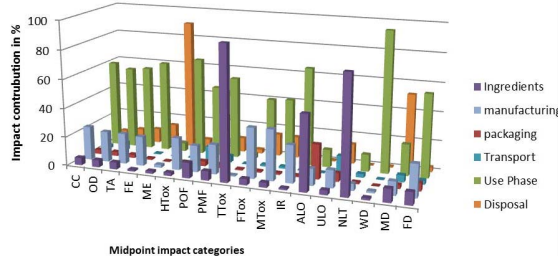
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Hand dishwashing detergents

The life cycle stage with the largest contribution to the environmental impact is the use phase followed by the sourcing of raw materials (ingredients) and the end of life.

Based on the results of this study, the key environmental performance indicators for HDDs in Europe are:

- Amount of product used.
- Formulation: the choice and amount of surfactant.
- Energy needed to heat the water.
- Energy source to heat the water.



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Hand dishwashing detergents

Summary of findings from revised studies

Although the scopes and goals of the reviewed LCA studies vary, most of them draw similar conclusions. From a life cycle perspective the major environmental impacts are due to:

- The energy used for heating the water during the use stage. Additionally, energy use has an impact in other categories such as fossil fuel depletion and global warming potential.
- The extraction and processing of raw materials that causes an impact on categories such as mineral depletion, land use and energy use.
- The emissions to the environment after use. The discharge of wastewater has impacts on eutrophication while the impacts due to the end-of-life of packaging materials depend on their possible scenarios.

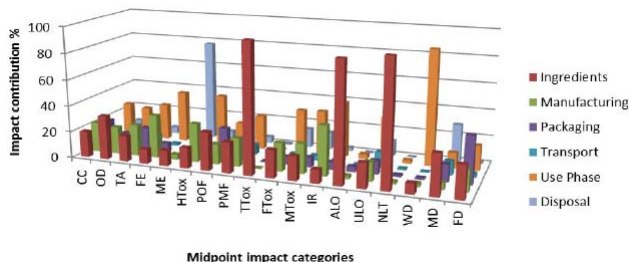


All-purpose cleaners and sanitary cleaners

The life cycle stage with the largest contribution to the environmental impact is the sourcing of raw materials (the ingredients).

These results were found out for a general purpose cleaner. According to the literature, other APC detergent types such as bathroom detergents, window detergents or hard surface detergents would, in general terms, follow the same trend.

If hot water is used, then the use phase has a significant impact due to energy used to heat the water.





All-purpose cleaners and sanitary cleaners

Summary of findings from revised studies

Although the scopes and goals of the reviewed LCA studies vary, most of them draw similar conclusions.

From a life cycle perspective the major environmental impacts associated with APCs are due to:

- Consumption of resources. The ingredients used for the production of APCs contributed significantly to the environmental impact. The extraction and processing of raw materials causes impacts on categories such as land use and energy use.
- Depending on the type of APC, the consumption of water in the use phase is also relevant.
- Energy consumption, if hot water is used.



Laundry detergents

Identified hotspots/aspect (LCA and non-LCA impacts)	EU Ecolabel criteria	Comments on the related criteria
Wash temperature	User information	The criterion encourages users to opt for lower water temperatures.
	Fitness for use	It ensures that the product is fit to wash at low temperatures (15-30C depending on the product).
	Information appearing on the EU Ecolabel	It informs consumers that the product's performance has been tested, even at low temperatures.
Energy sources to heat up the water	--	Out of the scope of this policy tool
Amount of product used per application	User information	It informs users about the amount of product to be used depending on the washing conditions.
	Dosage requirement	This criterion limits the amount of product that manufacturers can recommend to users.
Choice and amount of surfactants	Biodegradability	It ensures that surfactants are biodegradable and will not persist in water.
	Restricted substances	It ensures that hazardous surfactants are not included in the bill of materials.
	Phosphorus content	It ensures that limited and restricted types of phosphorus compounds are not included as ingredients.
	Sustainable Palm oil	It ensures that palm oil surfactants do not cause unnecessary strain on the ecosystem.

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