

Cleaning products & services

Green Public procurement (GPP) Product Sheet



This Product Sheet forms part of the EU Commission's GPP Training Toolkit, which can be downloaded from the GPP website http://ec.europa.eu/environment/gpp/toolkit_en.htm. Similar Product Sheets have been established for 10 other product and service groups. More information on the reasons for selecting these criteria can be found in the [detailed background report](#) on the website.

For each product/service group two sets of criteria are presented:

- **Core GPP criteria** address the most significant environmental impacts, and are designed to be used with minimum additional verification effort or cost increases
- **Comprehensive GPP criteria** are intended for use by authorities who seek to purchase the best environmental products available on the market, and may require additional administrative effort or imply a certain cost increase as compared to other products fulfilling the same function.

1 Scope

This Product sheet covers procurement actions for the purchase of both **cleaning products** and **cleaning services**. In terms of products, four categories of products are covered, in line with those covered by the EU Ecolabel

(http://ec.europa.eu/environment/ecolabel/index_en.htm):

- All purpose cleaners, sanitary cleaners and window cleaners
- Detergents for domestic (or similar) dishwashers
- Hand dishwashing detergents
- Laundry detergents for domestic washing machines

1.1 Cleaning products

The purchase of cleaning products presents a particular challenge to contracting authorities given the complexity of the chemical information to be assessed.

The criteria presented here are taken from the EU Ecolabel for cleaning products. This label constitutes a useful and reliable verification instrument, as it implies third-party verification. Products carrying the EU Ecolabel will fulfil both the **Core** and **Comprehensive** criteria. For products not carrying the EU Ecolabel, the contracting authority will have to verify compliance with the technical specifications based on suitable documentation provided by the bidder, such as a technical dossier by the manufacturer or a test report from a recognised body.

The **Core** criteria below include the EU Ecolabel criteria that are easiest for a contracting authority to verify and which cover the main environmental impacts.

The **Comprehensive** criteria use the full set of environmental EU Ecolabel criteria.

It should be noted however that EU Ecolabel criteria have been developed for products used in households. They should therefore only be used as GPP criteria in relation to products for cleaning operations where a) the cleaning need and performance standard required is similar to that for households

and b) the cleaning process, conditions and equipment used are similar to those used in households

1.2 Cleaning services

Many authorities have their cleaning services carried out by private contractors. The tendering procedure for selecting the contractor offers opportunities for improving the environmental and health performance of these services.

The reduction in the use of cleaning chemicals through using appropriate dosages or new cleaning techniques is a particularly efficient way to reduce the environmental impacts of cleaning.

At the **Core** level, the recommendations focus on ensuring that the products used meet strict environmental criteria, as outlined in section 1.1 above.

At the **Comprehensive** level, in addition to stricter criteria for the products used, recommendations are made for defining the way in which the service has to be carried out.

2 Key environmental impacts

Impact

Air pollution, ozone formation (smog), bioaccumulation or food chain exposure and hazardous effects on aquatic organisms or the increased growth of undesirable aquatic organisms which can degrade water quality due to the use of certain substances within cleaning agents

Negative impact on the occupational health of employees due to the use of certain cleaning agents that contain solvents classified as harmful to health

Generation of waste through packaging



GPP Approach

- Avoid unnecessary products
- Decrease the use of products through reviewing cleaning plans and techniques
- Avoid certain substances or ingredients in cleaning products
- Improve the training of cleaning staff
- Decrease the quantity of packaging used
- Ensure the recyclability of the packaging used
- Increase the use of recycled packaging

3.1

Cleaning products - Core GPP criteria

Note: The criteria are not the same for all types of cleaning products. Contracting authorities should only include the criteria where there is an “X” in the relevant box. In some cases the exact criterion is further qualified by way of additional text in the box.

| | Applicable for: | | | | | |
|--|--------------------------------------|----------------------------|-----------------|-----------------------------|--------------------|-----------------------|
| | All purpose cleaners | Sanitary cleaners | Window cleaners | Hand dishwashing detergents | Laundry detergents | Dishwasher detergents |
| Subject matter | | | | | | |
| Purchase of environmentally friendly cleaning products. | X | X | X | X | X | X |
| Specifications | | | | | | |
| Fitness for use | | | | | | |
| 1. Samples of all products must be supplied to the contracting authority for testing. | X | X | X | X | X | X |
| Chemical requirements | | | | | | |
| 2. No ingredient (substance or preparation) shall be included in the product in a quantity that exceeds 0.01% by weight of the final product that is classified with any of the risk phrases, or combinations thereof, as outlined in the following table in accordance with Directive 67/548/EEC and its amendments or Directive 1999/45/EC and its amendments. These criteria do not apply to biocides, which are dealt with separately below: | X | X | X | X | X | X |
| • R31 (contact with acids liberates toxic gases) | X | | | | | |
| • R40, 45, 49 (carcinogenic) | X | X | X | X | X | X |
| • R42, (sensitising), exceeding 0.1% by weight of the final product | X | X | X | X | | |
| • R43 (sensitising), exceeding 0.1% by weight of the final product | X | X | X | X | | |
| • R46, 60, 61, 62, 63 (toxic for reproduction) | X | X | X | X | X | X |
| • R50/53, 51/53 (toxic to aquatic organisms) | X | X | X | X | X | X |
| • R59 (dangerous to the ozone layer) | X | X | X | X | X | |
| • R68 (possible risk of irreversible effects) | X | X | X | X | X | X |
| 3. The following ingredients must not be included in the product: | | | | | | |
| • Phosphorus | X (limit: 0.02g per functional unit) | X (1g per 100g of product) | X | | | |

| | | | | | | X (limit: 25g per wash) | X (limit: 10g per wash) |
|---|--|--------------------------------|--------------------------------|----------|----------|--------------------------------|--------------------------------|
| | • Phosphates | | | | | | |
| | • Biocides, unless used as preservatives | X | X | X | X | | |
| | • Biocides which are classified as R50/53 or R51/53 in accordance with Directive 67/548/EEC and its amendments or Directive 1999/45/EC and its amendments, unless they are not potentially bioaccumulative, In this context, a biocide is considered to be potentially bioaccumulative if the log Pow (log octanol/water partition coefficient) > or= to 3,0 (unless the experimentally determined BCF < or= 100). | X | X | X | X | | |
| | • Preservatives which are or may be classified as R50/53 in accordance with Directive 67/548/EEC and its amendments or Directive 1999/45/EC and its amendments | | | | | X | X |
| Verification (for chemical requirements) | | | | | | | |
| | All products carrying the EU Ecolabel will be deemed to comply. If the product does not carry the EU Ecolabel the following information must be clearly provided: | X | X | X | X | X | X |
| | For each product offered, all substances contained above 0.01% by weight of the final product must be listed, together with their CAS-Number ³ (where available) and any risk-phrases with which they are classified. | X | X | X | X | X | X |
| | The name and function of all biocides must be listed. For all biocides classified as R50/53 or R51/53 the log P _{ow} or BCF must be given. | X | X | X | X | | |
| | The total quantity of elementary phosphorus must be given. | X (per functional unit) | X (per 100g of product) | | | | |
| | The total quantity of phosphates per wash must be given. | | | | | X | X |
| Packaging requirements | | | | | | | |
| | 4. All products must be delivered with clear dosing instructions. | X | X | X | X | X | X |
| | 5. Sprays containing propellants must not be used. | X | X | X | | | |
| | 6. The primary packaging parts shall be easily separable into mono-material parts. | X | X | X | X | | |
| | 7. The cardboard packaging shall consist of ≥ 80% recycled material. | | | | | X | X |

¹ Log P_{ow} = log octanol/water partition coefficient

² BCF = Bio-concentration factor

³ The CAS-Number is an internationally recognised identity number assigned by the Chemical Abstracts Service (a division of the American Chemical Society) to identify a specific chemical.

Contract performance clauses

| | | | | | | |
|--|---|---|---|---|---|---|
| The contractor is committed, during the whole period of the contract to prove, when requested by the contracting authority, that the ingredients of all products supplied meet the biodegradability conditions outlined in the Detergents Regulation 648/2004. | X | X | X | X | X | X |
|--|---|---|---|---|---|---|

3.2

Cleaning products - Comprehensive GPP criteria

| | Applicable for: | | | | | |
|--|----------------------|-------------------|-----------------|-----------------------------|--------------------|-----------------------|
| | All purpose cleaners | Sanitary cleaners | Window cleaners | Hand dishwashing detergents | Laundry detergents | Dishwasher detergents |
| Subject matter | | | | | | |
| Purchase of environmentally friendly cleaning products. | X | X | X | X | X | X |
| Specifications | | | | | | |
| <p>1. The Ecological and packaging requirements for the EU Ecolabel for the relevant product must be met (full criteria documents available at http://ec.europa.eu/environment/ecolabel/index_en.htm:</p> <ul style="list-style-type: none"> All purpose cleaners and cleaners for sanitary facilities (Commission Decision 2005/344/EC) Laundry detergents (Commission Decision 2003/200/EC) Hand dishwashing detergents (Commission Decision 2005/342/EC) Detergents for dishwashers (Commission Decision 2003/31/EC) <p>Verification: The EUEcolabel will be accepted as proof of compliance, as will any other appropriate means of proof, such as a technical dossier of the manufacturer or a test report from a recognised body.</p> | X | X | X | X | X | X |

3.3 Explanatory notes

- **Ecolabel criteria:** It is possible to indicate that the criteria underlying a certain ecolabel need to be met, as long as the criteria are eligible for defining the product, and on the condition that other forms of proof are also accepted. For more information please see the accompanying [Fact Sheet on the use of Ecolabels in public procurement](#).
- **Inserting full criteria:** Some contracting authorities may prefer to insert the complete criteria set rather than simply refer to the EU Ecolabel. The complete criteria set is included in the [Background Product Report](#).
- **Technical specifications or award criteria:** Where the contracting authority is unsure about the price and availability of products on the market, the above specifications can be used as award criteria. Where a points-based evaluation system is used these criteria could for example be given a 15% weighting in the final evaluation. Alternatively carrying out some initial market research will help to indicate whether products are available on the market.

4 Cleaning services - GPP criteria

4.1 Cleaning services - Core GPP criteria

Subject matter

Environmentally friendly cleaning services.

Specifications

Products used by the cleaning company must meet the following criteria:
(insert specifications from 'Core criteria for cleaning products' – in [section 3.1](#)).

Verification:

The bidder must supply a list of the products that will be used, together with proof of compliance with the above specifications:
(insert verification requirements from 'Core criteria for cleaning products' – in [section 3.1](#)).

Contract performance clauses

After the first six months of the contract, and thereafter at the end of every year of the contract, a balance must be submitted by the contractor indicating the name and quantity of the cleaning products used. For any products not mentioned in the initial bid the contractor shall provide the required proof of compliance with the technical specifications.

Cleaning services - Comprehensive GPP criteria

Subject matter

Environmentally friendly cleaning services.

Selection criteria

The bidder must demonstrate its capacity to carry out the service in an environmentally sound manner. This must include evidence of the regular training of staff on health, safety and environmental aspects of cleaning activities, together with specific environmental management measures which are routinely applied by the bidder in cleaning contracts.

Verification:

An environmental management system (such as EMAS, or ISO 14001) if covering and attesting environmental management capacities as laid down in the selection criteria, shall be recognised as evidence of compliance, as will other evidence of equivalent environmental management measures.

Specifications

1. Products used by the cleaning company must meet the following criteria:

(insert specifications from 'Comprehensive criteria for cleaning products' – in [section 3.2](#)).

Verification:

The bidder must supply a list of the products that will be used, together with proof of compliance with the specifications:

(insert verification requirements from 'Comprehensive criteria for cleaning products' – in [section 3.2](#)).

Staff and organisation

2. All cleaning staff employed in carrying out the service must be regularly trained for their various tasks. This training should cover cleaning agents, methods, equipment and machines used; waste management and aspects of health, safety and the environment. A record of these training measures (introductory/vocational training) should be kept at the disposal of the contracting authority.
3. In agreement with the contracting authority, precise work instructions on environmental protection and on health and safety standards in carrying out the service shall be produced and displayed in the buildings in a way that they can be consulted by cleaning staff at any time.
4. A facility manager, foreman/forewoman or co-ordinator should be nominated to organise and supervise the cleaning. The appointed person should stay in contact with the contracting authority and be reachable during working hours. The facility manager, foreman/forewoman or co-ordinator has to be sufficiently trained in the fields of occupational health and safety standards, application techniques and environmental issues.

Environmentally friendly cleaning techniques

5. The contractor should use reusable microfibre cloths and apply dry-cleaning techniques for linoleum flooring where appropriate.

Contract performance clauses

After the first six months of the contract, and thereafter at the end of every year of the contract, a balance must be submitted by the contractor indicating the name and quantity of the cleaning products used. For any products not mentioned in the initial bid, proof of compliance with the specifications must be submitted.

Within 6 months of the beginning of the contract, the contractor will provide a report to the contracting authority on the practicality of using microfibre cloths, and dry-cleaning techniques for linoleum flooring. The contractor should also be able to justify the cleaning frequency and range of products used.

4.3. Cleaning services - Explanatory notes

- **Developing work instructions:** One good way to reduce the amount of chemicals used for cleaning is to ensure that excessive cleaning does not occur. In drawing up the work instructions the contractor should be encouraged to consider the appropriate cleaning frequency for different areas of the building.
- **Reducing the quantity of cleaning products used:** It may be a good idea to encourage an improvement in the environmental/health aspects of the service throughout the contract period, by setting targets for constant improvement in the contract conditions. This could be done by specifying, for example, that the quantity of cleaning products used must decrease by a certain percentage each year, which can be judged by asking the bidder to provide a full breakdown of the quantities of all products used per year. In this case it will be important to ensure that the quality of the service does not suffer, through regular quality checks.
- **Optimising the range of cleaning products used:** A number of products typically used in cleaning services are often used too frequently or may even be unnecessary from a hygiene perspective. Such products include toilet bowl freshener, cistern additives, deodorising blocks for urinals, air freshener, chemical drain cleaners, fabric softeners, floor finish based on water insoluble polymers, disinfectants, aerosol cans and propellants

5 Cost considerations

A Commission study on the Costs & Benefits of GPP in 2007⁴, examined the cost implications of purchasing green (ecolabelled) cleaning products on the overall cleaning budget.

Significantly, between 92% and 97% of the money spent on cleaning is spent on staff costs, and therefore differences in product prices have a largely minimal impact on overall cleaning budgets.

With regards to the products themselves a mixed picture emerged as the following table demonstrates.

| Country | Price difference between green and non-green product (%) | | |
|----------------|--|----------------------------|-----------------|
| | All-purpose and floor care products | Sanitary cleaning products | Window cleaners |
| Sweden | -74% (i.e. green product less expensive) | -82% | -9% |
| Germany | +36% | +148% | -36% |
| Spain | +131% | +92% | -94% |
| Czech Republic | +158% | +2% | - |

These differences reflect the advanced development of the market for green cleaning products in the Nordic countries, and indicate that in countries where the market is not so well developed, products currently may cost substantially more.

Reconsidering the cleaning frequency for different parts of the building may be beneficial both in terms of human resources and chemicals needed for carrying out the service.

6 Relevant EU legislation and information sources

EU legislation establishes absolute restrictions on the use of chemicals with certain properties, as well as rules on the information producers must provide users with. Most relevant legislation:

⁴ Study on costs/benefits of Green public procurement in Europe, Öko-Institut & ICLEI 2007, available at http://ec.europa.eu/environment/gpp/index_en.htm

- Directives 67/548/EEC⁵ and 1999/45/EC⁶ require producers of dangerous chemicals in EU member states to provide industrial and professional users with detailed health, safety and environmental information and advice about their products. Many chemicals have been analysed for their properties in this regard, and may be issued with a hazard warning (e.g. T: Toxic, N: dangerous for the environment), together with a risk phrase indicating the precise nature of the risk (e.g. – R26: very toxic by inhalation, R51: toxic to aquatic organisms).
- Directive 76/769/EEC⁷ and its subsequent amendments restrict the chemical properties of products. It is stated that products classified as Toxic (T) or Very Toxic (T+) may not be placed on the market for sale to the general public. They are only permitted for certain specialist uses (such as in laboratories) and as such will not be available to contracting authorities.
- Regulation (EC) No 648/2004 updates and expands restrictions on the testing and sale of detergents. In particular it aims to increase the protection of the aquatic environment against the harmful effects of surfactants⁸, through stricter testing of biodegradability. Now, only surfactants meeting strict biodegradability standards can be used in cleaning products. In certain situations producers can apply for a derogation, however, in practice, such products would never be legally available to contracting authorities.
- Council Directive 76/768/EEC relating to cosmetic products and its subsequent amendments and Council Directive 94/36/EC of 30 June 1994 on colours for use in foodstuffs and its subsequent amendments provide useful information for contracting authorities relating to certain dyes and fragrances. However they do not apply to cleaning products.
- A new European Chemicals regulation (REACH) was adopted in December 2006. REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals. REACH Regulation (EC) No 1907/2006 and Directive 2006/121/EC amending Directive 67/548/EEC were published in the Official Journal on 30 December 2006.

REACH entered into force on 1 June 2007. Enterprises which manufacture or import more than one tonne of a chemical substance per year will be required to register it in a central database administered by the new EU Chemicals Agency.

⁵ Council Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances

⁶ EC Directive 1999/45/EC concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations

⁷ Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations

⁸ Surfactants (surface active agents) are the most important ingredients in cleaning products, due to their capability to wet hydrophobic surfaces, remove dirt and keep it in suspension

Information sources

- Commission Decision of 23 March 2005 establishing ecological criteria for the award of the Community ecolabel to all-purpose cleaners and cleaners for sanitary facilities (2005/344/EC): <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:115:0042:0068:EN:PDF>
- Commission Decision of 29 November 2002 establishing revised ecological criteria for the award of the Community ecolabel to detergents for dishwashers and amending Decision 1999/427/EC (2003/31/EC): http://eur-lex.europa.eu/LexUriServ/site/en/oj/2003/L_009/L_00920030115en00110025.pdf
- Commission Decision of 23 March 2005 establishing revised ecological criteria for the award of the Community ecolabel to hand dishwashing detergents (2005/342/EC): http://eur-lex.europa.eu/LexUriServ/site/en/oj/2005/L_115/L_11520050504en00090034.pdf
- Commission Decision of 14 February 2003 establishing revised ecological criteria for the award of the Community ecolabel to laundry detergents and amending Decision 1999/476/EC (2003/200/EC): http://eur-lex.europa.eu/LexUriServ/site/en/oj/2003/L_076/L_07620030322en00250039.pdf
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:396:0001:0849:EN:PDF>
- Proposal for a Regulation of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, and amending Directive 67/548/EEC and Regulation (EC) No 1907/2006: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007PC0355:EN:HTML>
- Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31967L0548:EN:HTML>
- Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31st March 2004 on detergents: http://eur-lex.europa.eu/LexUriServ/site/en/oj/2004/L_104/L_10420040408en00010035.pdf
- Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations: <http://eur-lex.europa.eu/LexUriServ/site/en/consleg/1999/L/01999L0045-20060213-en.pdf>
- Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1976L0769:20071003:EN:PDF>

- Council Directive of 27 July 1976 on the approximation of the laws of the Member States relating to cosmetic products (76/768/EC): <http://eur-lex.europa.eu/LexUriServ/site/en/consleg/1976/L/01976L0768-20070508-en.pdf>
- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1994L0062:20050405:EN:PDF>
- European Parliament and Council Directive 94/36/EC of 30 June 1994 on colours for use in foodstuffs: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31994L0036:EN:HTML>
- Nordic Ecolabelling - Ecolabelling of Cleaning Products, Version 4.0 • 13 december 2007 – 31 December 2011: <http://www.svanen.nu/Default.aspx?tabName=CriteriaDetailEng&menuItemID=&pgr=26>
- Nordic Ecolabelling – Swan labelling of Cleaning Services Version 1.4 - 17 December 2002 – 31 December 2009: <http://www.svanen.nu/Default.aspx?tabName=CriteriaDetailEng&menuItemID=&pgr=76>

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