



B: Cleaning and Maintenance Products and Services

1 Key environmental impacts

Impact	Approach
Air pollution, ozone formation (smog), bioaccumulation or food chain exposure and maybe hazardous effects on aquatic organisms due to the use of certain chemicals within cleaning agents.	Avoidance of unnecessary products Avoidance of certain substances or ingredients in cleaning products
Negative impact on the occupational health of employees due to the use of certain cleaning agents that contain solvents classified as harmful to health	Procurement / use of products without harmful substances

Other approaches to reducing environmental impacts include reviewing cleaning methods, frequencies and dosage, optimising and reducing the product range, participation and training of cleaning staff in addition to reducing dirt. The amount of packaging also represents a waste problem after use, therefore the procurement of bigger containers, refilling of clearly-marked bottles, purchase of concentrated cleaning agents, etc. should also be considered.

2 Procura+ Key Criteria – Cleaning products

Direct cleaning product purchases

The Procura+ Key Criteria for direct cleaning products purchases focus on two main aspects:

- **Exclusion of certain substances or ingredients:** For the cleaning agents, the products and ingredients suggested for exclusion are those most hazardous to the local environment and human health, and effective alternatives are available for all. The classifications referred to, are those laid out in EC Directive 1999/45/EC and Council Directive 67/548/EEC. Further information on the substances excluded is included in the detailed chapter on cleaning products in the CD-ROM.
- **Dosage devices and instructions:** In many cases excessive amounts of cleaning products are used because users are not aware of the appropriate dosage or do not have usable measuring devices. A great deal can be saved through the inclusion of dosage devices and instructions

- The criteria are valid for institutional cleaning products used for general cleaning and maintenance of buildings: all-purpose and neutral cleaners; cleaners for cleaning plastic or metal surfaces; sanitary and toilet cleaners; restroom and bathroom cleaners; dishwashing detergents (hand and machine dishwashing detergents); laundry detergents; softener; glass and alcohol cleaners; carpet cleaning agents; floor strippers and floor care products.

Direct cleaning product purchases (in-house cleaning)


Subject matter: *Purchase of environmentally friendly cleaning products*


Specifications: *All procured products must be delivered with clear dosage instructions and devices and must be in compliance with the following criteria:*

- **Are not** classified as sensitising (with R42 and/or R43), or as dangerous for the environment (N) according to the Dangerous Preparations Directive (1999/45/EC)
- **Do not** contain volatile organic compounds in concentrations that exceed 10% of the weight of the product (or 20% in the case of floor care products). The following solvents are allowed up to 30%: ethanol, isopropanol, n-propanol and acetone
- **Do not** contain preservatives with a bio-accumulative potential: $\log P(ow) > 3$ or $\text{exp. BCF} > 100$.
- **Do not** contain surfactants not readily biodegradable (OECD 301A-F).
Surfactants have to comply with Detergent Regulation 648/2004/EC without application of Article 5 and 6 (exception)
- **Do not** contain the following ingredients:
 - Those classified as carcinogenic, mutagenic, or toxic to reproduction (R45, 46, 49, 60, 61), or very toxic or toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment (R50/53, 51/53) according to the Dangerous Substances Directive (67/548/EEC) in quantities that exceed 0,01 % by weight of the final product. This includes also each ingredient of any preparation used in the formulation that exceeds 0,01 % by weight of the final product
 - Ethylenediamine tetraacetate (EDTA)
 - Alkylphenoethoxylates (APEO)
 - Chlorine based bleach (active chlorine compounds).
 - Nitro-musk and polycyclic musk compounds
- Added perfume blends are produced in accordance with IFRA norms
- Dyes: Colouring agents must be included in Cosmetic Directive 2003/15/EEC or permitted for use as colours in foodstuff

Verification: *Suppliers must provide clear evidence that the criteria are met. Products carrying the EU Ecolabel or Nordic Swan will be deemed to comply*

Implementation notes:

 **Surfactants:** The criteria relating to the biodegradability of surfactants are the same as those of the proposed EC Regulation on detergents. They remain part of the Key Criteria as, even if the regulation passes into law it will still be possible for manufacturers to apply for derogation (exemption). Such derogation will only be granted on the basis of a complementary risk assessment and may allow or restrict the use of surfactants not being readily biodegradable, probably mainly for special applications

 **Lots:** As contracts for cleaning products tend to cover a wide range of product types - as outlined above - it is a good idea to divide the tender into "lots". This means that a supplier can choose to offer products in some categories but not in others. The tenderer then chooses the best product in each category (or "lot"), even if they come from different suppliers.

Contracted cleaning services

The Procura+ Key Criteria for contracting cleaning services focus on the following aspects:

- **Exclusion of certain substances or ingredients:** For the cleaning agents, the products and ingredients suggested for exclusion are those most hazardous to the local environment and human health, and effective alternatives are available for all. The classifications referred to are those laid out in EC Directive 1999/45/EC and Council Directive 67/548/EEC. Further information on the substances excluded is included in the detailed chapter on cleaning products in the CD-ROM.
- **Responsible cleaning practices:** Cleaning staff are constantly in touch with substances that contain chemical components that can be irritating, corrosive, etc. Therefore in order to guarantee safety conditions, staff have to be trained and clear procedures must be in place.

Contracted cleaning services

Subject matter: *Contract for environmentally friendly cleaning services*

Specifications: *Products employed by the cleaning company must meet the following criteria: (insert the criteria from the “Direct cleaning product purchases” section)*

Verification: *The contractor must supply a list of the products intended to be used, together with information proving that they meet these specifications. At the end of each year a balance must be submitted indicating the name and quantity of the cleaning products used. For any products not mentioned in the initial bid information must again be submitted proving they meet the specifications*

Selection criteria:

The contractor must either:

- *Have an environmental management system (EMS) for cleaning services (such as EMAS, or ISO 14001) or,*
- *Commit to developing precise work instructions on environmental protection and on health and safety standards in carrying out the service. These instructions shall be presented to the contracting authority during the first weeks after the start of the contract and shall be displayed in the buildings in a way that they can be consulted by each cleaning person at any time. Examples of work instructions include the identification and proper handling of hazardous products, proper procedures for the storage of hazardous materials, precise dosage instructions, waste separation and disposal and skin protection*

Contract provisions:




a) Staff and Organisation

- *The cleaning staff must be trained for their various tasks. A record of these training measures (introductory/vocational training) should be kept and presented to the contracting authority*
- *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*

b) Supplies, Materials and Equipment to be provided by the contractor

- *By request of the contracting authority all cleaning supplies used in the facility have to be balanced according to their quantity. The first balance shall be drawn up six months after the start of the contract. Subsequently, an annual balance shall be settled each year and shall be submitted to the contracting authority according to prior agreement*

Implementation notes:

-  **Selection criteria (EMS):** the presentation of a certified environmental management system (EMS) will be a means of proof of the technical capacity to provide an environmentally sound cleaning service, as long as the EMS is related to the performance of the service and not to another area not related to the subject matter of the contract.
-  **Contract clauses (tender documents):**
These special contract clauses must be made clear to potential bidders in the tender documents.
-  **Contract clauses (penalties for non-compliance):** To ensure effectiveness, appropriate penalties must be included in the contract for non-compliance, for example withholding payment until compliance is achieved.

3 Further ideas

- Reconsider your needs and optimise the range of the cleaning products used, especially the necessity of: Toilet bowl freshener, cistern additives, deodorising blocks for urinals, air freshener, chemical drain cleaners, fabric softener, floor finish based on water insoluble polymers, disinfectants in cleaners, aerosol cans and propellants, floor finish strippers, strongly acidic cleaners, disinfectants
- Use “green cleaning techniques” such as speed rotary floor machines, mopping systems, cleaning by cup method and cleaning trolleys
- If the cleaning service is done by in-house workers, consider extensive introductory training for new staff and regular training for permanent staff. Particularly cover important topics such as dosage and dosage devices, new techniques and cleaning products, awareness of health risks and usage guidance.
- Stricter standards (1): Your authority may want to implement higher environmental standards than the ones given. You may then ask for products that are not classified as harmful (Xn), corrosive (C): R34, R35; irritating (Xi, with R41).

You may also wish to exclude products containing ingredients classified as R39 (danger of very serious irreversible effects), or R48 (danger of serious damage to health by prolonged exposure), though it unlikely these would anyway be included in the products offered.

Please be aware however that for the time being only products labelled with the Nordic Swan fully comply with these criteria. The EU Eco-label would not be sufficient evidence of compliance, and additional proof would need to be requested from the supplier.
- Stricter standards (2): In countries where there is significant waste processing under anaerobic conditions, it could be helpful to include a further criteria: “Products do not contain surfactants that are non-anaerobically biodegradable in accordance with OECD 11734”. This is a requirement of both the EU Ecolabel and the Nordic Swan, which can therefore be used to demonstrate compliance.
- Overall environmental burden: The EU Ecolabel criteria also require the product to meet a certain standard in terms of the overall toxicity to the aquatic environment, indicated by the “Critical Dilution Volume” (CDV_{TOX}). This is a very effective way of ensuring the best possible product is purchased but would require a substantial degree of calculation on behalf of the contracting authority, or alternative means of measuring the offered products, as this will not be included in the standard information on the product. For more information see the EU Ecolabel criteria document: http://ec.europa.eu/environment/ecolabel/pdf/all-purpose_cleaners/all_purpose_cleaners_en.pdf
- Discuss the appropriate cleaning frequency.



4 Relevant product labels

	<p>European Eco-label</p> <p>All-purpose cleaners and sanitary cleaning products (Decision 2005/344/EC) Detergents for dishwashers (Decision 2003/31/EC) Hand dishwashing detergent (Decision 2005/342/EC) Laundry detergents (Decision 2003/200/EC)</p> <p>http://europa.eu.int/comm/environment/ecolabel/</p>
	<p>Scandinavian Eco-label (Nordic Swan)</p> <p>All Purpose cleaners • Sanitary cleaning products Dishwasher detergents • Hand dishwashing detergents Floor care products • Shampoo & Soap</p> <p>www.svanen.nu</p>
	<p>German Eco-label (Blauer Engel)</p> <p>RAL-UZ 70 laundry detergent</p> <p>www.blauer-engel.de</p>
	<p>Austrian Eco-label</p> <p>UZ 19 Hand dishwashing detergent UZ 20 Detergent for dishwashers UZ 21 Textiles laundry detergent UZ 30 All-purpose cleaners and sanitary cleaning products (identical with EU-Eco-label guideline)</p> <p>www.umweltzeichen.at</p>
	<p>Eco-label by Environmental Choice Program Canada</p> <p>General Purpose Cleaners Industrial and Commercial Cleaners</p> <p>www.terrachoice.ca</p>
	<p>Eco-label (Green Seal)</p> <p>Hand Cleaners (GS-41)</p> <p>Industrial and Institutional Cleaners: All Purpose Cleaners (GS-37) • Powdered Laundry Bleach (GC-11) Glass Cleaners (GS-37) • Floor Care Products (GS-40)</p> <p>www.greenseal.org</p>