

Sustainable Public Procurement-fiche: advanced

1) Subject matter

Environmental friendly detergents for dishwashers (household)

“For <.....> (name of the public authority), the care for the environment and social aspects is important. It is stated in her <strategic policies>, <mission>, <vision>, <procurement policy>, ...”

2) Exclusion criteria

Non compliance with environmental and social legislation, which has been the subject of a final judgment or a decision having equivalent effect, may be considered an offence concerning the professional conduct of the economic operator concerned or grave misconduct, permitting to exclude the party concerned from competing for the contract

Ref:

Art. 53 and 54 of Directive 2004/17/EC and Art. 45 of Directive 2004/18/EC

3) Technical capacity (not exclusive)

/

4) Technical specifications

Chemical substances:

- 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): R40, R45, R49, R46, R60, R61, R62, R63, R64, R68 (see annex)
[EU toolkit core criteria]

- No substances that are classified with the following risk phrases may be included in the product: R50/53 (see annex)



- The following ingredients shall not be included in the product, either as part of the formulation or as part of any preparation included in the formulation:
 - alkylphenolethoxylates (APEOs) or other alkyl phenol derivatives (APDs).
 - EDTA (ethylene-diamine-tetra-acetate)
 - NTA (nitrilotriacetate)
 - Complexing agents such as MGDA and GLDA may contain impurities below 1.0 % of NTA in the raw material, as long as the concentration of NTA in the end product is below 0.1 %. [EU toolkit comprehensive criteria]

-Nitromusks and polycyclic musks shall not be included in the product, either as part of the formulation or as part of any preparation included in the formulation. This concerns, amongst others, the following:

- musk xylene: 5-tert-butyl-2,4,6-trinitro-m-xylene
- musk ambrette: 4-tert-butyl-3-methoxy-2,6-dinitrotoluene
- moskene: 1,1,3,3,5-pentamethyl-4,6-dinitroindan
- musk tibetine: 1-tert-butyl-3,4,5-trimethyl-2,6-dinitrobenzene
- musk ketone: 4-tert-butyl-2,6-dimethyl-3,5-dinitroacetaphenone
- HHCB: 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta(g)-2-benzopyran
- AHTN: 6-Acetyl-1,1,2,4,4,7-hexamethyltetralin

[EU toolkit comprehensive criteria]

Phosphates (as STPP — sodium tripolyphosphate)

- Phosphates are the quantity of phosphates in the formulation calculated as STPP. Phosphates shall be ≤ 10 g/wash. [EU toolkit core criteria]
- The quantity of phosphonates that are not readily biodegradable (aerobically) shall not exceed 0,2 g/wash.[EU toolkit core criteria]

Surfactants:

Each surfactant used in the product shall be readily (aerobically) biodegradable. The content of substances that are not readily anaerobically biodegradable in the dishwasher detergent must not exceed 1.2 g/wash. Applies to organic substances only. [EU toolkit comprehensive criteria]

Fragrances:

Any ingredients added to the product as a fragrance shall have been manufactured and/or handled following the code of practice of the International Fragrance Association.[EU toolkit comprehensive criteria]



Evidence:

The compliance with all the criteria mentioned above can be proved with the following label:



Nordic Swan

Eu Ecolabel



Österreichischer Umweltzeichen



in case that the tendering company can present this label, any further proof is not necessary.

****** Other possibilities of proof:******

- For each product offered, all substances contained above 0.01% by weight of the final product must be listed, together with their CASNumber (where available) and any risk-phrases with which they are classified.

and

- The total quantity of phosphates per wash must be given.

5) Awarding the contract:

	Criterion	Weight
1	Price <i>Calculation (e.g.):</i> Lowest offered price/ stated price x 0,70	e.g. 70%
2	Environmental criteria (The public authority formulates the points it wants to assign to the below mentioned criteria) <i>Calculation (e.g.):</i> Total scored points / maximum number of points x 0,20	e.g. 20%
3	...	e.g. 5 %
4	...	e.g. ...

Environmental criteria

The final product:

- The product must not be classified as environmentally hazardous or harmful. The product may however be classified as harmful (Xn) or irritating (Xi) and subject to one or more of the following risk phrases: R22, R36, R37, R38, R41 (see annex) [EU toolkit comprehensive criteria]

Chemical substances:

- Total chemicals, in g/wash, are the recommended dosage minus water content.

Total chemicals shall be $\leq 22,5$ g/wash. [EU toolkit comprehensive criteria]

- The product must not contain more than 0.1 wt% of any single substance classified as: R42 and R43 (see annex)

Enzymes are exempted from this requirement. [EU toolkit comprehensive criteria]



- The product may contain a maximum of 0.1 g/wash of any substance that is classified with the following risk phrases: R51/53 ; R52/53 [EU toolkit comprehensive criteria]
- The following ingredients shall not be included in the product, either as part of the formulation or as part of any preparation included in the formulation:
DTPA, LAS (linear alkylbenzene sulphonates)[EU toolkit comprehensive criteria]

Phosphoros, phosphonates, phosphates:

- Phosphates shall be $\leq 0,05$ g/wash.[EU toolkit comprehensive criteria]
- The total quantity of phosphorous must not exceed 2.0 g/wash.[EU toolkit comprehensive criteria]
- The total quantity of phosphonates must not exceed 0.05 g/wash. [EU toolkit comprehensive criteria]

Biodegradability

Aerobically non-biodegradable organics (aNBDO) is the weight per wash, in g/wash, of all organic ingredients which are aerobically non-biodegradable (see DID-list).

aNBDO shall be ≤ 1 g/wash

Anaerobically non-biodegradable organics (anNBDO) is the weight per wash, in g/wash, of all organic ingredients that are anaerobically non-biodegradable using respective correction factors (see DID-list).

anNBDO shall be $\leq 0,2$ g/wash [EU toolkit comprehensive criteria]

Bleaching agents

The following substances are not allowed:

- Perborates
- Reactive chlorine compounds.

Enzymes:

- Enzymes may be present in liquid form or as dust-free granulate.[EU toolkit comprehensive criteria]
- The enzyme production micro-organism shall be absent from the final enzyme preparation. [EU toolkit comprehensive criteria]



Fragrances:

Allergenic substances in fragrances

Either requirement A or requirement B shall be fulfilled for the following allergenic substances:

- Amylcinnamyl alcohol 101-85-9
- Amyl cinnamal 122-40-7
- Anisyl alcohol 105-13-5
- Benzyl alcohol 100-51-6
- Benzyl benzoate 120-51-4
- Benzyl cinnamate 103-41-3
- Benzyl salicylate 118-58-1
- Cinnamal 104-55-2
- Cinnamyl alcohol 104-54-1
- Citral 5392-40-5
- Citronellol 106-22-9
- Coumarin 91-64-5
- d-Limonene 5989-27-5
- Eugenol 97-53-0
- Farnesol 4602-84-0
- Geraniol 106-24-1
- Hexyl cinnamaldehyde 101-86-0
- Hydroxy-citronellal 107-75-5
- Hydroxymethylphenyl cyclohexenecarboxaldehyd 31906-04-4
- Isoeugenol 97-54-1
- 2-(tert-Butylbenzyl) propionaldehyde 80-54-6
- Linalool 78-70-6
- Methyl heptyn carbonat 111-12-6
- Cetone Alpha 127-51-5
- Oak moss extract 90028-68-5
- Tree moss extract 90028-67-4

Requirement A

The product must not contain more than 0.010 wt% (100 ppm) of any of the above substances.

Requirement B:

The substances above must be declared on the product packaging if they are present in concentrations above 0.0010 wt% (10 ppm). [EU toolkit comprehensive criteria]

Surfactants:

Each surfactant used in the product shall be anaerobically biodegradable. [EU toolkit comprehensive criteria]



Preservatives:

Preservatives must not be bioaccumulating. This requirement applies to all preservatives in product ingredients and raw materials.^[EU toolkit comprehensive criteria]

Colorants:

All organic colorants added to the product as ingredients or through raw materials shall fulfil the following requirement:

The colorant must be approved for use in foodstuffs or must not be bioaccumulating (logKow < 3.0 or BCF < 100).^[EU toolkit comprehensive criteria]

Dosage:

Powder and tablets without rinsing agents

Maximum dosage: 18 g/wash.

Combination with rinsing agent

Maximum dosage: 20 g/wash. If the application is for rinsing agent sold as a joint product with dishwasher detergent, the dosage of rinsing agent is calculated from the active substance in 6 ml of agent.

^[EU toolkit comprehensive criteria]

6) Performance clauses:

- (1) All products must be delivered with clear dosing instructions. ^[EU toolkit core]
- (2) The cardboard packaging shall consist of $\geq 80\%$ recycled material. ^[EU toolkit core]
- (3) 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. ^[EU toolkit core]



6bis) Specific performance clause

Declaration on animal testing

1) For the delivery of the products in this procurement, the tenderer declares to not (or no longer) conduct or commission animal testing and must apply a verifiable fixed cut-off date. This date is an unmoveable date after which none of its finished products, ingredients or formulations (delivered by itself or its suppliers) have been animal tested.

2) The tenderer must be open to an independent audit throughout its supply chain to ensure that they adhere to their animal testing policy.

Proof:

The tenderer can proof the compliance with the above mentioned requirements on animal testing by a signed declaration of the Humane Cosmetics Standard or the Humane Household Products Standard. Products with the leaping bunny logo also



comply:

Any other proof in compliance with the above mentioned criteria can be accepted.

References

[Information of the public authority that used these clauses in a procurement case]



Annex R-PHRASES:

(R-phrases are mentioned on product labels and in product safety datasheets. It can be a useful tool for verification-procedures.)

<u>R1:</u>	Explosive when dry.
<u>R2:</u>	Risk of explosion by shock, friction, fire or other sources of ignition.
<u>R3:</u>	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
<u>R4:</u>	Forms very sensitive explosive metallic compounds.
<u>R5:</u>	Heating may cause an explosion.
<u>R6:</u>	Explosive with or without contact with air.
<u>R7:</u>	May cause fire.
<u>R8:</u>	Contact with combustible material may cause fire.
<u>R9:</u>	Explosive when mixed with combustible material.
<u>R10:</u>	Flammable
<u>R11:</u>	Highly flammable
<u>R12:</u>	Extremely flammable
<u>R13 (obsolet):</u>	<i>Extremely flammable liquid gas (This R-phrase is no longer designated by the version of the GefStoffV published on 26.10.93.)</i>
<u>R14:</u>	Reacts violently with water.
<u>R15:</u>	Contact with water liberates extremely flammable gases.
<i>Merck R15.1</i>	<i>Contact with acid liberates extremely flammable gases.</i>
<u>R16:</u>	Explosive when mixed with oxidizing substances.
<u>R17:</u>	Spontaneously flammable in air.
<u>R18:</u>	In use, may form flammable/explosive vapour-air mixture.
<u>R19:</u>	May form explosive peroxides.
<u>R20:</u>	Harmful by inhalation.
<u>R21:</u>	Harmful in contact with skin.
<u>R22:</u>	Harmful if swallowed.
<u>R23:</u>	Toxic by inhalation.
<i>Riedel-de Haen R23K:</i>	<i>Also toxic by inhalation.</i>
<u>R24:</u>	Toxic in contact with skin.
<i>Riedel-de Haen R24K:</i>	<i>Also toxic in contact with skin.</i>
<u>R25:</u>	Toxic if swallowed.
<i>Riedel-de Haen R25K:</i>	<i>Also toxic if swallowed.</i>
<u>R26:</u>	Very toxic by inhalation.
<i>Riedel-de Haen R26K:</i>	<i>Also very toxic by inhalation.</i>
<u>R27:</u>	Very toxic in contact with skin
<i>Riedel-de Haen R27A:</i>	<i>Very toxic in contact with eyes.</i>
<i>Riedel-de Haen R27K:</i>	<i>Also very toxic in contact with skin.</i>
<i>Riedel-de Haen</i>	<i>Also very toxic in contact with eyes.</i>



<u>R27AK:</u>	
<u>R28:</u>	Very toxic if swallowed.
<i>Riedel-de Haen</i>	<i>Also very toxic if swallowed.</i>
<u>R28K:</u>	
<u>R29:</u>	Contact with water liberates toxic gas.
<u>R30:</u>	Can become highly flammable in use.
<u>R31:</u>	Contact with acids liberates toxic gas.
<i>Merck R31.1</i>	<i>Contact with alkalies liberates toxic gas.</i>
<u>R32:</u>	Contact with acids liberates very toxic gas.
<u>R33:</u>	Danger of cumulative effects.
<u>R34:</u>	Causes burns.
<u>R35:</u>	Causes severe burns.
<u>R36:</u>	Irritating to eyes.
<i>Riedel-de Haen</i>	<i>Lacrimating</i>
<u>R36A:</u>	
<u>R37:</u>	Irritating to respiratory system.
<u>R38:</u>	Irritating to skin.
<u>R39:</u>	Danger of very serious irreversible effects.
<u>R40:</u>	Possible risk of cancer. <i>CAUTION: Until 2001 this R-phrase was used for possible mutagenic or teratogenic risks as well. These risks are now labelled with R68!</i>
<u>R41:</u>	Risk of serious damage to eyes.
<u>R42:</u>	May cause sensitization by inhalation.
<u>R43:</u>	May cause sensitization by skin contact.
<u>R44:</u>	Risk of explosion if heated under confinement.
<u>R45:</u>	May cause cancer.
<u>R46:</u>	May cause heritable genetic damage.
<i>R47(obsolet):</i>	<i>May cause deformities. (This R-phrase is no longer designated by the version of the GefStoffV published on 26.10.93.)</i>
<u>R48:</u>	Danger of serious damage to health by prolonged exposure.
<u>R49:</u>	May cause cancer by inhalation.
<u>R50:</u>	Very toxic to aquatic organisms.
<u>R51:</u>	Toxic to aquatic organisms.
<u>R52:</u>	Harmful to aquatic organisms.
<u>R53:</u>	May cause long-term adverse effects in the aquatic environment.
<u>R54:</u>	Toxic to flora.
<u>R55:</u>	Toxic to fauna.
<u>R56:</u>	Toxic to soil organisms.
<u>R57:</u>	Toxic to bees.
<u>R58:</u>	May cause long-term adverse effects in the environment.
<u>R59:</u>	Dangerous for the ozone layer.
<u>R60:</u>	May impair fertility.
<u>R61:</u>	May cause harm to the unborn child.
<u>R62:</u>	Possible risk of impaired fertility.
<u>R63:</u>	Possible risk of harm to the unborn child.
<u>R64:</u>	May cause harm to breastfed babies.
<u>R65:</u>	Harmful: may cause lung damage if swallowed.
<u>R66:</u>	Repeated exposure may cause skin dryness or cracking.
<u>R67:</u>	Vapours may cause drowsiness and dizziness.
<u>R68:</u>	Possible risks of irreversible effects.



COMBINATIONS OF R-PHRASES:

- R14/15: Reacts violently with water, liberating extremely flammable gases.
- R15/29: Contact with water liberates toxic, extremely flammable gas.
- R20/21: Harmful by inhalation and in contact with skin.
- R21/22: Harmful in contact with skin and if swallowed.
- R20/22: Harmful by inhalation and if swallowed.
- R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
- R21/22: Harmful in contact with skin and if swallowed.
- R23/24: Toxic by inhalation and in contact with skin.
- R24/25: Toxic in contact with skin and if swallowed.
- R23/25: Toxic by inhalation and if swallowed.
- R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
- R24/25: Toxic in contact with skin and if swallowed.
- R26/27: Very toxic by inhalation and in contact with skin.
- R27/28: Very toxic in contact with skin and if swallowed.
- R26/28: Very toxic by inhalation and if swallowed.
- R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.
- R36/37: Irritating to eyes and respiratory system.
- R37/38: Irritating to respiratory system and skin.
- R36/38: Irritating to eyes and skin.
- R36/37/38: Irritating to eyes, respiratory system and skin.
- R39/23: Toxic: danger of very serious irreversible effects through inhalation.
- R39/24: Toxic: danger of very serious irreversible effects in contact with skin.
- R39/25: Toxic: danger of very serious irreversible effects if swallowed.
- R39/23/24: Toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
- R39/23/25: Toxic: danger of very serious irreversible effects through inhalation and if swallowed.
- R39/24/25: Toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
- R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R39/26: Very toxic: danger of very serious irreversible effects through inhalation.
- R39/27: Very toxic: danger of very serious irreversible effects in contact with skin.
- R39/28: Very toxic: danger of very serious irreversible effects if swallowed.
- R39/26/27: Very toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
- R39/26/28: Very toxic: danger of very serious irreversible effects through inhalation and if swallowed.
- R39/27/28: Very toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
- R39/26/27/28: Very toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R42/43: May cause sensitization by inhalation and skin contact.
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R48/21: Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
- R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- R48/20/21: Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
- R48/20/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R48/21/22: Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
- R48/20/21/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- R48/23: Toxic: danger of serious damage to health by prolonged exposure through inhalation.
- R48/24: Toxic: danger of serious damage to health by prolonged exposure in contact with skin.
- R48/25: Toxic: danger of serious damage to health by prolonged exposure if swallowed.
- R48/23/24: Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
- R48/23/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.



- R48/24/25: Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
- R48/23/24/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R68/20: Harmful: possible risk of irreversible effects through inhalation.
- R68/21: Harmful: possible risk of irreversible effects in contact with skin.
- R68/22: Harmful: possible risk of irreversible effects if swallowed.
- R68/20/21: Harmful: possible risk of irreversible effects through inhalation and in contact with skin.
- R68/20/22: Harmful: possible risk of irreversible effects through inhalation and if swallowed.
- R68/21/22: Harmful: possible risk of irreversible effects in contact with skin and if swallowed.
- R68/20/21/22: Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

