Sustainable Public Procurement-fiche: advanced

1) Subject matter

Environmentally friendly wash installations to clean the outside of cars and trucks

"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)

The EMAS certificate or equivalent certificates covering car wash services, can serve as possible means of proof for companies to demonstrate their technical capacity to perform the environmental management measures. Equivalent certificates are issued by bodies conforming to Community law or the relevant European or international standards concerning certification and based on relevant European or international environmental management standards. Also all other means of evidence provided by the company that can prove this technical capacity will be accepted.

4) Technical specifications

Water consumption

- Per washed car a maximum of 105 liter fresh water is used.
- Per washed truck or bus a maximum of 750 liter fresh water is used.

Cleaning products

- Cleaning products are not classified according to EU directives on dangerous substances or preparations 67/548/EEC and 1999//45/EEC (with adaptations and amendments) as:
    - dangerous to the environment: N with R50, R50/53 or R51/53 and R52, R53 or R52/53 without N
    - very toxic: T+ with R26, R27, R28, R39
    - toxic: T with R23, R24, R25, R39, R45, R46, R48, R49, R60, R61
    - harmful: Xn with R20, R21, R22[1], R40, R48, R62, R63, R65[1],R68
    - irritating: Xi with R41[1]
    - sensitising: Xn with R42 or Xi with R43
    - corrosive: C with R34[1] and R35
    - extremely flammable: F+ with R12
    - highly flammable: F with R11, R15 and R17

    Labeling with R10, Xi with R36/37/38 or Xn with R66 is allowed.

    (see also annex)

    This requirement applies also to super-concentrates diluted to concentrated form.
- Cleaning products do not contain the following compounds:
    - musk xyleen (CAS 81-15-2)
    - musk ambrette (CAS 83-66-9)
    - moskene (CAS 116-66-5)
    - musk tibetine (CAS 145-39-1)
    - musk ketone (CAS 81-14-1)
    - HHCB (CAS 1222-05-5)
    - AHTN (CAS 1506-02-1 and 21145-77-7)
- The content of volatile organic compounds, VOC, in the cleaning products does not exceed 6.0% by weight.
- Pigments in dyes used in the cleaning products are not based on heavy metals (lead, cadmium, mercury, chromium VI). All dyes used in the cleaning products are dyes who are allowed in foodstuffs (as defined in directive 94/36/EG) or cosmetics (as defined in directive 76/768/EEG).

[1] applies to products not used in automatic washing installations

Waste

Waste must be sorted for reuse and recycling, at least for those types of waste:

- Paper and cardboard
- wood/pallets
- plastics
- metals
- dangerous waste

Evidence:

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

Milieukeur Nordic Swan

in case that the tendering company can present one of those labels, any further proof is not necessary. Any other suitable evidence from a recognized body can also be used.

5) Awarding the contract:

	Criterium	***Weight***
1	***Price*** *Calculation (e.g.):* 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) *Calculation (e.g.):* Total scored points / maximum number of points x 0,20	e.g. 20%
3	…	e.g. 5 %
4	…	e.g.….

Environmental criteria

Waste water treatment

- Oil separators and systems for water treatment that are connected to the wash installation are not charged by surface water. However, the treatment system may be used for wastewater from areas used for purposes other than vehicle washing, provided that this is approved by the supplier of the treatment system and the authorities. Toilets are not connected to the treatment system due to the risk of the spread of infections.
- Vehicle wash installations with recycling water system are designed to prevent anaerobic conditions in the water.
- Tanks and containers in the treatment system with re-circulated water can be refilled with clean water or, when it concerns a re-circulated water installation with water from the sludge tanker truck it should be guaranteed that the sludge tanker is not contaminated with heavy metals or bacteria.
- Re-circulated water may not be used in manual wash installations.
- Emissions to the drainage system from automated and manual wash installations do not exceed the following values:

  For cars: (monthly averages)
  - for Pb, Ni and Cr: 7mg/car
  - for Cd: 0,1mg/car
  - for Zn: 50mg/car
  - for Cu: 10mg/car
  - for oil: 1,5mg/car

  For trucks: (monthly average and one vehicle unit (vu) is a vehicle, truck or bus, with a length of 12 metres)

  - for Pb, Ni and Cr: 21mg/vu
  - for Cd: 0,3mg/vu
  - for Zn: 150mg/vu
  - for Cu: 30mg/vu
  - for oil: 4,5mg/vu
- Drains in the floors of chemical storage rooms are not connected to the treatment system for the wash installation. Drains constructed in a way to limit the effects of chemical spills (for instance sealed or with valve) are exempted.
- Waste from oil and sludge separators and other pollutants from the treatment system are handled by a facility approved by the authorities to process this type of waste.

- Water treatment chemicals (for example products for pH-regulation, chemical precipitation and eliminating micro-organisms) must not contain chloro-organic substances or reactive chlorine compounds, which can form chloro-organic metabolites.

Emissions

- For wash installations dimensioned for cars: when the emission of DEHP is less than 1mg/car the tenderer receives one point more.
- For wash installations dimensioned for trucks and buses: when the emission of DEHP is less than 3mg/vehicle unit the tenderer receives one point more.
- For wash installations dimensioned for cars: when the emission of COD is less than 100g/car the tenderer receives one point more, when the emission of COD is less than 50g/car the tenderer receives two points more.
- For wash installations dimensioned for trucks and buses: when the emission of COD is less than 300mg/vehicle unit the tenderer receives one point more, when the emission of COD is less than 150g/vehicle unit the tenderer receives two points more.

Waste

- Also other waste streams than paper and cardboard, wood/pallets, plastics, metals and dangerous waste are sorted for reuse and recycling.

Water consumption

- The less fresh water there is used per washed car or washed bus or truck the more awarding points the tenderer receives.
    - For wash installations dimensioned for cars: If a maximum of 70 liter fresh water is used per washed car: 1 point; if a maximum of 65 liter fresh water is used per washed car: 2 points; if a maximum of 45 liters is used per washed car: 4 points
    - For wash installations dimensioned for trucks and buses: If a maximum of 270 liter fresh water is used per washed bus or truck: 1 point; if a maximum of 200 liter fresh water is used per washed bus or truck: 2 points; if a maximum of 135 liters is used per washed bus or truck: 4 points.
- For a self serve car wash: the use of water of the spray nozzles is maximum 9 liter/min.

Energy use

- For tunnel-like conveyorized automatic car washes: a maximum of 25MJ is used per vehicle washed.[2]
- For roll over wash installations of 15MJ is used per vehicle washed. [3]
- If the wash installation has a system for automatic gate closure in the winter the tenderer receives more awarding points e.g. 2 points.
- If the wash installation is encompassed by an energy management system the tenderer receives more awarding points e.g. 2 points
- If the wash installation is equipped with automatic light control the tenderer receives extra awarding points e.g. 1 point.

Cleaning products

- Cleaning products are not classified according to EU directives on dangerous substances or preparations 67/548/EEC and 1999//45/EEC (with adaptations and amendments) as explosive: E with R2 and R3**.**
- Cleaning products do not contain substances classified as toxic for reproduction (classified as R60, R61, R62, R63 or R64) or classified as R48/23/24/25, R23, R24, R39/23/24/25 and R34 as defined in Directive 67/548/EG and Directive 99/45/EG in concentrations higher than the limits defined in Directive 99/45/EG.
- Cleaning products do not contain more than 0,1% by weight of a substance that is classified as dangerous for the environment with R50/53, R51/53, R59, R52/53 or R53 and may not contain more than 1% by weight of those substances in total.
- In total cleaning products do not contain more than 5% by weight of substances that are classified as dangerous for the environment with R50 or R52.
- Cleaning products do not contain the following compounds:
    - HHCB (CAS 114109-62-5, 114109-63-6, 1222-05-5, 78448-48-3 and 78448-49-4). The different CASnumbers refer to different isomers.
    - cashmeran (CAS 33704-61-9)
    - celestolide (CAS 13171-00-1)
- Fragrances used in the cleaning products must comply with the IFRAs recommendations

[2] A tunnel-like conveyorized automatic car wash: a computer driven car wash installation that uses conveyors to push or pull the vehicle through a series of fixed cleaning mechanisms

[3] A roll over wash installation: a computer driven car wash in which the car stays on the same place and the wash installation moves over it.

- Those allergenic fragrance substances are not present in the cleaning products
    - Amyl cinnamal CAS 122-40-7
    - Benzyl alcohol CAS 100-51-6
    - Cinnamyl alcohol CAS 104-54-1
    - Citral CAS 5392-40-5
    - Eugenol CAS 97-53-0
    - Hydroxy-citronellal CAS 107-75-5
    - Isoeugenol CAS 97-54-1
    - Amylcinnamyl alcohol CAS 101-85-9
    - Benzyl salicylat CAS 118-58-1
    - Cinnamal CAS 104-55-2
    - Coumarin CAS 91-64-5
    - Geraniol CAS 106-24-1
    - Hydroxyisohexyl 3-cyclohexene carboxaldehyd CAS 31906-04-4
    - Anisyl alcohol CAS 105-13-5
    - Benzyl cinnamat CAS 103-41-3
    - Farnesol CAS 4602-84-0
    - Butylphenyl methylpropional CAS 80-54-6
    - Linalool CAS 78-70-6
    - Benzyl benzoate CAS 120-51-4
    - Citronellol CAS 106-22-9
    - Hexyl cinnamaldehyd CAS 101-86-0
    - d-Limonene CAS 5989-27-5
    - alpha isomethyl ionone CAS 127-51-5
    - methyl 2-octynoat CAS 111-12-6
    - Oak moss extract CAS 90028-68-5
    - Tree moss extract CAS 90028-67-4
- Those substances are not present in the cleaning products:
    - halogenated and/or aromatic solvents
    - linear alkylbenzene sulphonates (LAS)
    - alkyl phenol ethoxylates (APEO) and alkylphenolderivates (APD)
    - perfluorinated and polyflourinated compounds (PFAS)
    - chloro-organic substances or reactive chlorine compounds capable of forming chloro-organic metabolites
- The content of volatile organic compounds, VOC, in the cleaning products does not exceed 5.0% by weight.
- The maximum content of halogenated and volatile aromatic hydrocarbons in the cleaning products is 0,5% by weight.
- The cleaning products do not contain more than 4% by weight of NTA.
- The cleaning products do not contain phosphates and/or EDTA.
- Pigments in dyes used in cleaning products are not based on aluminium or copper.

- The cleaning products contain only organic substances that are readily aerobically degradable in accordance with OECD Guidelines No. 301 A – F or other equivalent methods and anaerobically degradable in accordance with ISO 11734 other equivalent method. Also their degradation products fulfill this requirement.

  The following compounds are exempted from the degradability requirement:

  - Dyes
  - non-chlorinated polymer
  - non-chlorinated natural and synthetic waxes
  - preservatives
  - iminodisuccinate
  - fragrance (see requirements to fragrance below)
  - denaturing agents in ethanol

Surfactants are exempted from the 10 days window in the OECD Guidelines No. 301 A – F or equivalent methods.

Substances that are not surfactants and which are not included in the DID-list may be exempted from requirements with regard to anaerobic degradability if they are:

- readily aerobically degradable and has low absorption (A < 25%) or
- readily aerobically degradable and has high absorption (D > 25%) or
- readily aerobically degradable and have not potential for bioaccumulation
- The cleaning products do not contain preservatives that are potentially bioaccumulative according to OECD Guidelines 107, 117 or 305.

Other

- In wash installations where the customer manually washes his car, the selection of car cleaning chemicals, dosage and water consumption is pre-programmed (automated).
- If the installation is intended for washing buses with on-board toilets, an emptying system shall be available to ensure that toilet waste is not discharged so that the recirculating water will not be contaminated.
- Per washed car a maximum of 25ml of car shampoo is used. For other products maximally 40ml is used per washed car.

6) Performance clauses:

- The treatment system is functioning and operational while the wash installation is in use. Interruptions to the operations of the treatment system must be repaired before the wash installation operates again.

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.)

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

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