

## ***Sustainable Public Procurement-fiche: advanced***

### ***1) Subject matter***

Dish washers for household use produced with environmentally friendly materials that are environmentally friendly in use and in the waste phase.

“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)***

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### ***4) Technical specifications***

#### ***Energy efficiency***

- Dishwashers with five or fewer place settings shall have an energy efficiency index lower than 0,76. This corresponds with energy class A or B as defined in Annex IV to Commission Directive 97/17/EC of 16 April 1997. (one place setting consists of a dinner plate, soup plate, dessert plate, a glass tumbler, tea cup and saucer, a knife, fork, soup spoon, dessert spoon and a teaspoon)
- Dishwashers with less than 10 place settings but more than five place settings shall have an energy efficiency index lower than 0,64. This corresponds with energy class A as defined in Annex IV to Directive 97/17/EC.



### **Water consumption**

- The water consumption of the dishwasher (expressed as W(measured)) shall be lower or equal to the threshold as defined by the equation below using the same test method EN 50242 and programme cycle as chosen for Directive 97/17/EC:

$$W(\text{measured}) \leq (0,625 \times S) + 9,25$$

where:

W(measured) = the measured water consumption of the dishwasher in litres per cycle, expressed to the first decimal,

S = the applicable number of standard place settings of the dishwasher.

### **Noise**

- Airborne noise from the appliance, counted as sound power, shall not exceed 53 dB (A) for free standing models and 50 dB (A) for built-in models.

### **Material requirements**

- Plastic parts heavier than 25 grams shall not contain the following flame retardants:

- o Decabromodiphenyl CASnr. 13654-09-6
- o Monobromodiphenyl ether CASnr. 101-55-3
- o Dibromodiphenyl ether CASnr. 2050-47-7
- o Tribromodiphenyl ether CASnr. 49690-94-0
- o Tetrabromodiphenyl ether CASnr. 40088-47-9
- o Pentabromodiphenyl ether CASnr. 32534-81-9
- o Hexabromodiphenyl ether CASnr. 36483-60-0
- o Heptabromodiphenyl ether CASnr. 68928-80-3
- o Octabromodiphenyl ether CASnr. 32536-52-0
- o Nonabromodiphenyl ether CASnr. 63936-56-1
- o Decabromodiphenyl ether CASnr. 1163-19-5
- o Chloroparaffins with chain length 10-13 C atoms, chlorine content > 50 % by weight CASnr. 85535-84-8

### **Recycling requirements**

- Plastic parts heavier than 50 grams shall have a permanent marking identifying the material, in conformity with ISO 11469. This requirement does not apply to extruded plastic parts.
- Plastic parts heavier than 25 grams shall not contain flame retardant substances that are assigned any of the risk phrases, as defined in Council Directive 67/548/EEC as last amended by commission Directive 98/98/EEC:
  - o R45 (see annex)
  - o R46
  - o R60
  - o R61



This requirement does not apply to flame retardants that on application change their chemical nature to no longer warrant classification under any of the risk phrases listed above, and where less than 0,1% of the flame retardants in the treated part remains in the form as before application.

**Other**

- The appliance shall have clear volumetric markings on the detergent dispenser allowing the user to adjust the detergent quantity used according to the type and amount of load and its degree of soil.

**Evidence:**

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



Nordic Swan



Eu Ecolabel

In case that the tendering company can present this label, any further proof is not necessary. Any other suitable evidence from a recognized body can also be used.

**5) Awarding the contract:**

	<b>Criterion</b>	<b>Weight</b>
1	<b>Price</b>  <i>Calculation (e.g.):</i> Lowest offered price/ stated price x 0,70	e.g. 70%
2	<b>Environmental criteria</b> (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***

### ***Energy efficiency***

- The energy efficiency index as defined in Annex IV to Directive 97/17/EC of 16 April 1997 is lower than the one described in the technical specifications.
- The dishwasher shall be suitable for connection to a hot-fill water supply.

### ***Water consumption***

- The dish washer uses less water than the limit described in the technical specifications.

### ***Noise***

- Airborne acoustic noise from the machine, in terms of sound power level, is less than the level described in the technical specifications.

### ***Material requirements***

- No substances based on cadmium, lead, mercury or their compounds may be added to parts.
- The following flame retardants may not be added to plastic materials:
  - o polybrominated biphenyls (PBB)
  - o polybrominated biphenyl ethers (PBDE)
  - o chloroparaffins with chain length 10-13 carbon atoms and chlorine content >50% by weight (CAS no 85535-84-8).
- Plastic parts heavier than 25 grams shall not contain flame retardant substances or preparations containing substances that are or may be assigned any of the risk phrases:
  - o R50 (see annex),
  - o R51
  - o R52
  - o R53

or any combinations of risk phrases containing any of the above risk phrases, as defined in 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 and its subsequent amendments.

This requirement does not apply to flame retardants that on application change their chemical nature to no longer warrant classification under any of the R-phrases listed above, and where less than 0,1 % of the flame retardant in the treated part remains in the form as before application.

### ***Recycling requirements***

- Plastic parts weighting more than 25 grams must be provided with markings specifying the material, in accordance with ISO 11 469.



**6) Performance clauses:**

- The manufacturer shall offer a commercial guarantee to ensure that the dishwasher will function for at least two years. This guarantee shall be valid from the date of delivery to the customer.
- The availability of spare parts must be guaranteed for ten or twelve years after production of the machine has ceased.

<p><b><i>References</i></b></p>
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[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 R27AK:</i>	<i>Also very toxic in contact with eyes.</i>
<u>R28:</u>	Very toxic if swallowed.
<i>Riedel-de Haen R28K:</i>	<i>Also very toxic if swallowed.</i>
<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 alkalis 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 R36A:</i>	<i>Lacrimating</i>
<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(obsolete):</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.





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- 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.

