

Sustainable Public Procurement-fiche: advanced

1) Subject matter

Environmentally friendly paints for indoor use. Wall paints are not included.

“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

Classification of the product

The product is not classified as very toxic, toxic, carcinogenic, toxic for reproduction, mutagenic in accordance with Directive 1999/45/EC.

Ingredients

- No ingredient shall be used that is assigned or may be assigned at the time of application as very toxic, toxic, carcinogenic mutagenic or toxic for reproduction as laid down in Council Directive 67/548/EEC or in Directive 1999/45/EC and its subsequent amendments.

Active ingredients used as preservatives in the formula and that are assigned as toxic or very toxic may nevertheless be used up to a limit of 0.1% (m/m) of the total paint formulation.



- The paints shall not be pigmented or siccated with pigments and siccatives based on lead, cadmium, chromium VI and their compounds. Excluded are natural or production-related impurities of up to 0.01 weight percent (100 ppm) - the limit for lead is 0.02 weight percent (200 ppm) - which may be contained in the raw material.

Evidence:

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



Milieukeur



Blaue Engel



NF Environnement



Eu Ecolabel



Nordic Swan



Nature Plus

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:

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

Environmental criteria

White pigments

The emissions and discharges of wastes from the production of any titanium dioxide pigment used shall not exceed the following (as derived from the Reference Document on Best Available Technology for the Manufacture of Large Volume Inorganic Chemicals (BREF) (August 2007)): [Level: Advanced]

- SO_x emissions (expressed as SO₂): 252 mg per m² of dry film (98 % opacity),
- sulphate wastes: 18 g per m² of dry film (98 % opacity),
- chloride wastes: 3.7, 6.4 and 11.9 g per m² of dry film (98 % opacity) respectively for natural rutile, synthetic rutile and slag ores.

Volatile organic compounds

- Interior trim and cladding paints for wood and metal including undercoats the VOC content shall not exceed 90 g/l including water.
- For primers (for interior use) and binding primers (for interior use) the VOC content shall not exceed 15g/l including water.
- For 1 pack performance coatings the VOC content shall not exceed 100 g/l including water.
- For two-pack reactive performance coatings for specific end use such as floors the VOC content shall not exceed 100 g/l including water.
- For decorative effect coatings the VOC content shall not exceed 90 g/l including water.



Volatile aromatic hydrocarbons (VAH)

Volatile aromatic hydrocarbons are not directly added to the product; however ingredients containing VAH may be added up to such a limit that the VAH content in the end product will not exceed 0.1% by weight. [Level: Advanced]

Heavy metals

The following heavy metals or their compounds shall not be used as an ingredient of the product or tint (as applicable) (whether as a substance or as part of any preparation used): cadmium, lead, chromium VI, mercury, arsenic, barium (excluding barium sulphate), selenium, antimony.

It is accepted that ingredients may contain traces of these metals up to 0,01% by weight deriving from impurities in the raw materials.

Classification of the final product

- The product shall not be classified as dangerous to the environment, harmful, corrosive or irritant (only where this is caused by the presence of ingredients labeled with R43) in accordance with Directive 1999/45/EC before or after tinting (where applicable).
- The product is not classified as explosive, oxidising, easily flammable or flammable in accordance with Directive 1999/45/EC.
- Substances or preparations listed in Annex I to Directive 67/548/EEC and set out in detail in Annex VI to Directive 67/548/EEC, may be contained in low-pollutant paints only up to the concentration limits which would make sure that the substance or preparation need not - according to Directive 1999/45/EC - be classified as irritant and assigned the symbol „Xi“ as well as the indication of danger „irritant“ and/or the following risk phrases:
 - o R 41 (see annex)
 - o R 36, 37, 38

Dangerous substances

- No ingredient shall be used that is assigned or may be assigned at the time of application as very toxic, toxic, mutagenic or toxic for reproduction and that is assigned any of the following risk phrases (or combinations thereof): R23, R24, R25, R26, R27, R28, R33, R39, R40, R42, R45, R46, R48, R49, R60, R61, R62, R63, R68 (see annex) as laid down in Council Directive 67/548/EEC or in Directive 1999/45/EC and its subsequent amendments.
Active ingredients used as preservatives in the formula and that are assigned any of the risk phrases R23, R24, R25, R26, R27, R28, R39, R40 or R48 (or combinations thereof) may nevertheless be used up to a limit of 0.01% (m/m) of the total paint formulation.
- No ingredient exceeds 2 % by weight, including those used in tinting (if applicable), that is assigned or may be assigned at the time of application any of the following risk phrases:



N R50, N R50/53, N R51/53, N R52/53, R51, R52, R53 (see annex)
as laid down in Directive 67/548/EEC or Directive 1999/45/EC.

The sum of those ingredients does not exceed 5% by weight.

This requirement does not apply to ammonia or alkyl ammonia.

- Active ingredients used as preservatives in the formula and that are classified as harmful for the environment as laid down in Directive 67/548/EEC may be used up to a limit of 0.1% by weight of the total paint formulation.
- The product may not contain solvents classified as harmful for the environment as laid down in Directive 67/548/EEC.
- Substances or preparations listed in Annex I to Directive 67/548/EEC and set out in detail in Annex VI to Directive 67/548/EEC may be contained in the finished product only up to 40 % of those limiting concentrations (≤ 40 weight percent) in the respective paints, which according to Directive 1999/45/EG would result in one of the following classifications:
 - o as harmful and assigned the symbol Xn and the indication of danger „harmful“
 - o as corrosive and assigned the symbol C and the indication of danger „corrosive“
- Alkylphenolethoxylates (APEOs) are not used in the product.
- The content of isothiazolinone compounds in the product shall not exceed 0.05% (m/m) before or after tinting (if applicable). For wood coatings isothiazolinone compounds shall not exceed 0,2% by weight. Likewise the content of the mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (EC No 247-500-7) and 2- methyl-2H-isothiazol-3-one (EC No 220-239-6) (3:1) shall not exceed 0.0015% by weight.
- The free formaldehyde content shall not exceed 10 mg/kg. Formaldehyde-releasing compounds may only be added in such quantity as will ensure that the resulting total content of free formaldehyde will not exceed 10 mg/kg.
- Perfluorinated alkyl sulfonates (PFAS), perfluorinated carboxylic acids (PFCA) including Perfluorooctanoic Acid (PFOA) and related substances listed in the OECD “Preliminary lists of PFOS, PFAS, PFOA, PFCA, related compounds and chemicals that may degrade to PFCA (as revised in 2007)” are not permitted in the product.
- Only halogenated compounds that at the time of application have been risk assessed and have not been classified with the risk phrases (or combinations thereof): R26/27, R45, R48/20/22, R50, R51, R52, R53, R50/53, R51/53, R52/53 and R59 in accordance with Directives 67/548/EEC, 1999/45/EC may be used in the product.
- Only phthalates that at the time of application have been risk assessed and have not been classified with the phrases (or combinations thereof): R60, R61, R62, R50, R51, R52, R53, R50/53, R51/53, R52/53, in accordance with Directive 67/548/EEC and its amendments, may be used in the product before or during tinting (if applicable). Additionally DNOP (di-n-octyl phthalate), DINP (di-isononyl phthalate), DIDP (di-isodecyl phthalate) are not permitted in the product.
- The product may not contain the following glycol ethers: DEGME (CAS 111-77-3), EGDME (CAS 110-71-4), DEGEE (CAS 111-90-0), DEGDME (CAS 111-96-



6), TEGME (CAS 112-35-6), TEGDME (CAS 112-49-6) et EGBE (CAS 111-76-2).

- The product does not include any biocides except for microbicides used as container or film preservatives with the contents listed below. With respect to these active substances the following shall apply:
 - o The acute toxicity value of the microbiocidal substance LC50 on fish and EC50 on daphnia is not less than 0.1 mg/l (OECD 203 EC C.1 or OECD 202 Part I, EC C.2) or the NOEC value on fish and daphnia is not less than 0.001 mg/l (OECD 202 Part 2)
 - o Microbiocidal active substances with an acute toxicity LC50 and EC50 between > 0.1 mg/l and 1 mg/l or a NOEC value between > 0.001 mg/l and 0.01 mg/l may be used in concentrations of up to 0.01 weight percent.

6) Performance clauses:

Packaging

- The packaging has to be from recyclable material like sheet metal and polyethene.
- PVC or vinylidene are not allowed.

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 R27AK:</i>	<i>Also very toxic in contact with eyes.</i>
<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.
<u>Merck R31.1</u>	<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.
<u>Riedel-de Haen R36A:</u>	<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-phras e 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.
<u>R47(obsolet):</u>	<i>May cause deformities. (This R-phras e 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.



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- 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.

