

BLUE ANGEL

The German Ecolabel



Wet cleaning services

DE-UZ 104

Basic Award Criteria

Edition January 2021

Version 2

The Environmental Label is supported by the following four institutions:



The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection is the owner of the label. It regularly provides information on the decisions taken by the Environmental Label Jury.



The German Environmental Agency with its specialist department for "Ecodesign, Eco-Labeling and Environmentally friendly Procurement" acts as office of the Environmental Label Jury and develops the technical criteria of the Basic Criteria for Award of the Blue Angel.



The Environmental Label Jury is the independent, decision-making body for the Blue Angel and includes representatives from environmental and consumer associations, trade unions, industry, the trade, crafts, local authorities, academia, the media, churches, young people and the German federal states.



The RAL gGmbH is the awarding body for the Environmental Label. It organises the process for developing the relevant award criteria in independent expert hearings – which involve all relevant interest groups.

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Version 1 (01/2021): First Edition, Expiry date: December 31, 2024

Version 2 (01/2023): Amendment following jury decision in section 3.2; extension of the term until December 31, 2025

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This document is a translation of a German original. In case of dispute, the original document should be taken as authoritative.

1 Introduction

1.1 Preface

In cooperation with the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the German Environmental Agency and considering the results of the expert hearings conducted by RAL gGmbH, the Environmental Label Jury has set up these Basic Criteria for the Award of the Environmental Label. RAL gGmbH has been tasked with awarding the Environmental Label.

Upon application to RAL gGmbH and on the basis of a Contract on the Use of the Environmental Label to be concluded with RAL gGmbH, the permission to use the Environmental Label may be granted to all products, provided that they comply with the requirements as specified hereinafter.

The product must comply with all the legal requirements in the country in which it is to be marketed. The applicant shall declare that the product meets this requirement.

1.2 Background

In general, there are three methods used for the cleaning of textiles:

- Dry cleaning (chemical cleaning) using organic solvents
- Cleaning using carbon dioxide as a solvent
- Wet cleaning using water as a solvent

Wet cleaning in baths (pre-cleaning, main cleaning, rinsing bath) does not use any organic solvents and exclusively uses water as a solvent. Professional wet cleaning requires specialist knowledge and careful working practices.

Within the scope of this environmental label, service providers must comply with these requirements.

1.3 Objectives of the environmental label

The objective of the environmental label is to label providers of textile cleaning services that either exclusively use wet cleaning or who use this process where possible to clean textiles and actively communicate this fact to their customers. As wet cleaning avoids the use of solvents that could be harmful to the environment and health, this process is preferable to dry cleaning both from an environmental perspective and because it offers better preventative protection for human health, especially the health of employees providing the textile cleaning service. The Basic Award Criteria for the Blue Angel also place requirements on the wet cleaning services to further improve the environmental performance of the company. Accordingly, the Blue Angel is used to label wet cleaning services that:

- offer an alternative to dry cleaning (chemical cleaning) and thus have lower emissions than dry cleaning services,
- actively communicate the environmental benefits to their customers with the note "wet cleaned",
- fulfil the additional requirements with respect to the water and energy consumption of the machines used in the process and also use detergents and cleaning products that have the least possible impact on the environment and human health.

Therefore, the following benefits for the environment and health are stated in the explanatory box:



1.4 Definitions

For the purpose of their use in these Basic Award Criteria, the following definitions are valid:

- **Dry cleaning** (chemical cleaning): The cleaning of textiles in non-aqueous, organic solvents.
- **Wet cleaning**: The professional cleaning of above all non-washable textiles with the aid of water as a solvent.
- **Wet cleaning service**: Wet cleaning services are part of the range of professional textile care services. The textiles are cleaned with the aid of water as a solvent. This process is followed by a suitable drying process and a restorative after-treatment such as form finishing.
- **Form finishing**: The restoration of the original form of the relevant textile. In the case of flat textiles, this is achieved by, for example, ironing the textiles. Special machines are used to restore the form of other textiles.
- **Carbon dioxide cleaning**: The cleaning of textiles with the aid of liquid carbon dioxide.
- **Business attire**: a dress code for business purposes. The most important aspect of this type of clothing is that the outfit is formal and has a business-like appearance. According to this definition, this comprises a suit, shirt, tie and clean, enclosed shoes for men, while women have the choice of wearing a skirt, dress, trouser suit or trousers.
- **Comparable work clothing**: describes clothing that is comparable to leisure or household clothing with respect to the type of wet cleaning, material, degree of soiling and standard of treatment.
- **Substance¹**: means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.
- **Impurity²**: An unintended constituent present in a substance as manufactured. It may originate from the starting materials or be the result of secondary or incomplete reactions during the manufacturing process. While it is present in the final substance it was not intentionally added.
- **Mixture**: Mix, mixture or solution composed of two or more substances.
- **Microplastic**: Plastic particles with a size of between 1 nm and 5 mm.

¹ REACH, Article 3, and CLP Regulation, Article 2

² Guidance for identification and naming of substances under REACH and CLP, Version 1.2 March 2012, Chapter 2.2, P. 8, http://echa.europa.eu/documents/10162/13643/substance_id_de.pdf

- **Plastic:** A macromolecular substance with a water solubility < 1 mg/L, obtained through:
 - a) a polymerisation process such as e.g. polyaddition or polycondensation or a similar process using monomers or other starting substances; or
 - b) chemical modification of natural or synthetic micromolecules; or
 - c) microbial fermentation.
- **Nanomaterial:** means a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm - 100 nm.³

2 Scope

These Basic Award Criteria apply to wet cleaning services for the treatment of non-washable outerwear made of textiles and leather that is worn at home, as business attire or as comparable work clothing, as well as for household textiles, which are cleaned using water as the solvent.

3 Requirements

The cleaning services named under Paragraph 2 can be labelled with the environmental label illustrated on the first page of these Basic Award Criteria if they fulfil the following requirements.

3.1 Equipment requirements for the wet cleaning system

To ensure that the goods being cleaned are protected in the cleaning system as much as possible, the following equipment requirements must be fulfilled:

- The special washing machine for the wet cleaning process must have a minimum drum volume of 100 litres.
- The wet washing machine must have a freely programmable control system, a temperature control function and an automatic dosing device for the laundry detergent.
- Dryers used in the wet washing process must have temperature and time limiting devices and they must be equipped with a humidity measurement device.
- The applicant must have professional form finishing equipment, e.g. a steam form finisher or a professional vacuum and blowing ironing table and must provide information on this equipment and any other drying equipment used at the company.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 and submit a declaration from the manufacturer of the wet cleaning system (Annex 2) for points 1-3.

3.2 Water consumption of washing machines

The water consumption of wet cleaning machines for normal outerware with easily removable soiling must not exceed 12 litres/kg of cleaned goods.

³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:275:0038:0040:DE:PDF>

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 and submit a declaration from the manufacturer of the machines (Annex 2). In addition, the applicant shall submit the technical data sheets for the machines used.

If the applicant does not receive confirmation of compliance with the water consumption value from the machine manufacturer, he can carry out the measurements himself in the company. For the measurement of the water consumption at the company, the applicant shall carry out at least five measurements to determine the average water consumption for the most commonly used programme. In addition, the applicant shall state the loading capacity, the washing temperature, the type of goods being cleaned and the number of baths. The average water consumption shall be stated in l/kg of cleaned goods. The information shall be submitted in Annex 1.

3.3 Detergents, cleaning products and other auxiliary substances

3.3.1 Solvents

No organic solvents may be added to the baths (pre-cleaning, main cleaning, rinsing bath) for the wet cleaning process.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1.

3.3.2 Spotting agents

For the removal of stains using spotting agents, no halogenated organic compounds or any preparations containing these compounds may be added. Hydrocarbon solvents and other halogen-free solvents may only be used based on good professional practice for the removal of stains in the pre-treatment and after-treatment stages.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1.

3.3.3 General exclusion of substances with certain properties

In order to protect the environment and health, no hazardous substances or substances of very high concern may be used in the detergent and cleaning products used for the wet cleaning process or in any other auxiliary substances (substances and mixtures) that have a concentration of $\geq 0.10\%$. In the case of mixtures e.g. fragrances where it is not possible to obtain information about the individual substances, the classification rules for mixtures shall be applied.

a) Substances of very high concern (SVHC)

It is prohibited to use substances that have been identified in accordance with Article 57 of Regulation (EC) No. 1907/2006 and listed in accordance with Article 59 of the same regulation on the list of candidates⁴ for inclusion on the Annex of substances subject to authorisation. Impurities in substances added to the end product that correspond to the

⁴ <http://echa.europa.eu/web/guest/candidate-list-table>

above named criteria are not permitted. The label holder is obligated to take into account current developments on the list of candidates.

- b) Substances which according to the criteria of Regulation (EC) No 1272/2008⁵ are assigned the following H Phrases named in Table 2 or which meet the criteria for such classification.

Table 1: Restrictive hazard classifications and their assignment to the categories

EC Regulation 1272/2008 (CLP Regulation)	Wording
Toxic substances	
H300	Fatal if swallowed
H301	Toxic if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H330	Fatal if inhaled
H331	Toxic if inhaled
EUH070	Toxic by eye contact
H370	Causes damage to organs
H371	May cause damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
Carcinogenic, mutagenic and reprotoxic substances	
H340	May cause genetic defects
H341	Suspected of causing genetic defects
H350	May cause cancer
H350i	May cause cancer if inhaled
H351	Suspected of causing cancer
H360F	May damage fertility
H360D	May damage the unborn child
H360FD	May damage fertility May damage the unborn child
H360Fd	May damage fertility Suspected of damaging the unborn child
H360Df	May damage the unborn child Suspected of damaging fertility

⁵ Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, as well as amending Regulation (EC) No. 1907/2006 (GHS Regulation).

EC Regulation 1272/2008 (CLP Regulation)	Wording
H361f	Suspected of damaging fertility
H361d	Suspected of damaging the unborn child
H361fd	Suspected of damaging fertility Suspected of damaging the unborn child
H362	May cause harm to breast fed children
Water-hazardous substances	
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long-lasting effects
H411	Toxic to aquatic life with long-lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life
Other Health and Environmental Effects	
H420	Hazardous to the ozone layer
Sensitizing substances	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317	May cause an allergic skin reaction

The use of substances or mixtures which upon processing change their properties (e.g. become no longer bioavailable, undergo chemical modification) in a way that the identified hazard no longer applies are exempted from the above requirement.

Deviations: The following substances or mixtures are specifically exempted from the above requirement:

EC Regulation 1272/2008 (CLP Regulation)	Wording
Surfactant (*)	H400 Very toxic to aquatic life
	H412 Harmful to aquatic organisms with long lasting effects
Enzymes (**)	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H317 May cause an allergic skin reaction
Proteases (e.g. subtilisin)	H400 Very toxic to aquatic life
	H411 Toxic to aquatic organisms with long lasting effects
NTA as an impurity in MGDA and GLDA (***)	H351 Suspected of causing cancer
ϵ -phthalimido-peroxy-hexanoic acid (PAP), used as a bleaching	H400 Very toxic to aquatic life

EC Regulation 1272/2008 (CLP Regulation)	Wording
agent at a maximum concentration of 0.6 g/kg of laundry	H412 Harmful to aquatic organisms with long lasting effects
Peracetic acid/hydrogen peroxide, used as a bleaching agent	H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long-lasting effects H411 Toxic to aquatic organisms with long lasting effects H412 Harmful to aquatic organisms with long lasting effects
Fragrances	H412 Harmful to aquatic organisms with long lasting effects

(*) This is also valid for impurities from the starting substances

(*) Including stabilisers and other auxiliary substances in the preparations.

(**) In concentrations lower than 0.2% in the raw material as long as the total concentration in the end product is lower than 0.10%.

Compliance verification

The applicant shall declare compliance with the requirements in Annex 1 and submit copies of the safety data sheets together with a detailed declaration from the manufacturer of the detergents and cleaning products verifying compliance with this criterion in Annex 3. This declaration from the manufacturer of the detergents and cleaning products shall contain a commitment to explicitly inform the licence holder of the Blue Angel if there are any changes to the classification of ingredients, or if ingredients have been added to the list of candidates, that are contrary to the requirements of the Blue Angel.

The safety data sheets may not be older than two years. In the event of changes to the list of candidates, the licence holder shall submit the amended data sheet from the manufacturer of the detergents and cleaning products and inform RAL gGmbH within one month in the event that the product does not comply with this criterion. If the commercial detergent and cleaning product used by the applicant has been certified with the EU Ecolabel for I&I detergents and cleaning products ((EU) 2017/1219 product group 039), these requirements are deemed to have been fulfilled. The applicant or the manufacturer of the detergents and cleaning products shall submit a valid certificate as verification.

3.3.4 Specific exclusion of substances

The wet cleaning process may only use detergents and cleaning products (substances and mixtures) that do not contain the following substances in a concentration $\geq 0.10\%$:

- Alkyl phenol ethoxylates (APEOs) and derivatives thereof
- EDTA (ethylenediaminetetraacetic acid) and its salts
- DTPA (diethylenetriaminepentaacetic acid) and its salts
- Inorganic phosphate(*) (e.g. monophosphoric, diphosphoric, triphosphoric and polyphosphoric acids and their salts)
- Reactive chlorine compounds (e.g. hypochlorite)
- Borate and perborate
- Perfluorinated organic compounds
- Halogenated hydrocarbons

- Aromatic hydrocarbons
- Triclosan
- 3-iod-2-propinylbutylcarbamate
- Glutaraldehyde
- Quaternary organic ammonium compounds that are not readily biodegradable
- Formaldehyde and formaldehyde releasers(**), e.g. (INCI designations):
 - ♦ 2-Bromo-2-Nitropropane-1,3-Diol
 - ♦ 5-bromo-5-nitro-1,3-dioxane
 - ♦ Diazolidinyl Urea
 - ♦ Sodium Hydroxymethylglycinate
 - ♦ Dimethylol Glycol
 - ♦ Dimethylol Urea
 - ♦ DMDM-Hydantoin
 - ♦ Quaternium-15
 - ♦ Tetramethylolglycoluril
- Nitromusks and polycyclic musks including e.g.:
 - ♦ 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'-dinitroacetaphenol,
 - ♦ 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-hexamethyltetrali)
- Nanosilver
- Hydroxyisohexyl 3-cyclohexene carboxaldehyde (HICC)
- Atranol
- Chloratranol
- Rhodamine B
- Microplastics

(*) Except for impurities or stabilisers with concentrations lower than 1.0% in the raw material and a total concentration in the end product lower than 0.010%.

(**) Except for impurities of formaldehyde in surfactants based on polyalkoxy compounds up to a concentration of 0.010% by mass in the ingredient

Compliance verification

The applicant shall declare compliance with the requirements in Annex 1 and submit copies of the safety data sheets together with a detailed declaration from the manufacturer of the detergents and cleaning products verifying compliance with this criterion in Annex 3.

The safety data sheets may not be older than two years. In the event of changes to the list of candidates, the licence holder shall submit the amended data sheet from the manufacturer of the detergents and cleaning products and inform RAL gGmbH within one month in the event that the product does not comply with this criterion. If the commercial detergent and cleaning product used by the applicant has been certified with the EU Ecolabel for industrial and institutional laundry detergents ((EU) 2017/1219, product group 039), these requirements are deemed to have been fulfilled. The applicant or the manufacturer of the detergents and cleaning products shall submit a valid certificate as verification.

3.3.5 Biocides

Biocidal products in the sense of Regulation (EU) No 528/2012 may not be added during the washing process or the after-treatment of the textiles.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1.

3.4 Waste water

The resulting wastewater load – containing both the washed-out dirt and the textile cleaning and finishing agents – must comply with the requirements according to the German Waste Water Ordinance (Abwasserverordnung) and the relevant ordinances for indirect dischargers issued by the German federal states or the municipal regulations.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1.

3.5 Voluntary commitment

Providers of wet cleaning services undertake to use wet cleaning processes for all the textile and leather products named under the scope of these Basic Award Criteria if they are labelled as suitable for wet cleaning, unless the customer explicitly asks for dry cleaning.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1.

3.6 Outlook

At least the following points will be examined in the next revision of the Basic Award Criteria:

- A discussion on the minimum volume of the drum
- Consideration of the results of the ecodesign process
- Water and energy consumption values for the devices used
- Other quality assurance aspects related to the service

4 Applicants and Parties Involved

Providers of services according to Paragraph 2 shall be eligible for application.

Parties involved in the award process are:

- RAL gGmbH to award the Blue Angel Environmental Label,
- the federal state being home to the applicant's production site,
- Umweltbundesamt (German Environmental Agency) which after the signing of the contract receives all data and documents submitted in applications for the Blue Angel in order to be able to further develop the Basic Award Criteria.

5 Use of the Environmental Label

The use of the Environmental Label by the applicant is governed by a contract on the use of the Environmental Label concluded with RAL gGmbH.

Within the scope of such contract, the applicant undertakes to comply with the requirements under Paragraph 3 while using the Environmental Label.

Contracts on the Use of the Environmental Label are concluded to fix the terms for the certification of products under Paragraph 2. Such contracts shall run until December 31, 2025. They shall be extended by periods of one year each, unless terminated in writing by March 31, 2025 or March 31 of the respective year of extension.

After the expiry of the contract, the Environmental Label may neither be used for labelling nor for advertising purposes. This regulation shall not affect products being still in the market.

The applicant (manufacturer) shall be entitled to apply to RAL gGmbH for an extension of the right to use the ecolabel on the product entitled to the label if it is to be marketed under another brand/trade name and/or other marketing organisations.

The Contract on the Use of the Environmental Label shall specify:

- Applicant (service provider)
- Brand/trade name, product description
- Distributor (label user), i.e. the above-mentioned marketing organisations.

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Appendix A Statutory regulations, testing standards and other literature

The currently valid versions of the relevant regulations and standards at the time of application apply, unless reference is made to a particular version of the regulation or standard in the criteria.

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- Commission Recommendation of 18 October 2011 on the definition of nanomaterial
- Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products
- Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents
- Law on the environmental compatibility of detergents and cleaning agents (Washing and Cleaning Agents Act - WRMG); <http://www.gesetze-im-internet.de/wrmg/>
- Ordinance on requirements for the discharge of wastewater into bodies of water (Wastewater Ordinance - AbwV); <https://www.gesetze-im-internet.de/abwv/>