



# Detergenza pulita AIAB

Specifications  
Ed. 02, Rev. 03

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## 1. INTRODUCTION

Today's consumerist society has a strong impact on the environment. The extent of this impact depends on the choices that each one of us, as a consumer, makes in order to meet our needs. A crucial decision that needs to be made is to purchase products characterised as much as possible by a high level of environmental sustainability. The consumers' demand for environmentally compatible products represents a powerful stimulus for companies, as it causes them to focus on how to make their products more environmentally friendly, intensifying their efforts on the subject of the environment and improving performance along the entire life cycle of their products and services. In order to choose products with a lower environmental impact, consumers need to have accessible, understandable, pertinent and credible information on the environmental quality of the products. Another important problem concerns the safety and healthiness of the products which, in several cases, generate significant indirect social costs.

## 2. AIM OF THE DOCUMENT

These specifications aim to define the characteristics and requirements of detergents and of other products falling within the field of application referred to in item 4 of these specifications that can display on their label the caption "Detergenza Pulita AIAB" (AIAB Clean Cleaning), and for which use of the special mark is granted.

Through these specifications, AIAB pursues the following objectives:

- to encourage, in the field of room deodorisers and home and residential facilities cleaning, the use of products obtained with raw materials, production processes and packaging characterised by low environmental impact.
- to obtain products that are not hazardous to the consumer's health and have no allergenic and irritating effects.
- to encourage the use of natural raw materials, coming from organic farming, non-GMO and not subjected to ionising radiations.

The certification will be entrusted to an external and independent Control Body which, through its technicians, will ascertain compliance with these specifications by the applicant producers.

## 3. TERMS AND DEFINITIONS

**Operator:** natural or legal person responsible for compliance with the provisions contained in these specifications within the scope of the organic company under its control.

**Control body:** independent third-party organisation that carries out inspections and grants certifications in compliance with these specifications.

**Raw material:** substance included in the formulation of a detergent.

**Cleaning product:** an substance or preparation containing soaps and/or other surfactants intended for washing and cleaning activities. Detergents may be in any form (liquid, powder, paste, bar,



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cake, moulded piece, etc.) and marketed for or used in household, or institutional or industrial purposes.

Other products considered to be detergents are:

- «auxiliary washing preparation» as intended for soaking (pre-washing), rinsing or cleaning clothes, household linen, etc.;
- «laundry fabric-softener» as intended to modify the feel of fabrics in processes which are to complement the washing of fabrics;
- «cleaning preparation» as intended for domestic all-purpose cleaners and/or other water-based cleaning of surfaces (e.g.: materials, products, machinery, mechanical appliances, means of transport and associated equipment, instruments, apparatus, etc.);
- «other cleaning and washing preparations» intended for any other washing and cleaning processes;

as defined by Regulation (EC) no. 648/2004.

**Surfactant:** any organic substance and/or preparation used in detergents, which has surface-active properties. It consists of one or more hydrophilic and one or more hydrophobic groups of such a nature and size that it is capable of reducing the surface tension of water, and of forming spreading or absorption mono-layers at the water/air interface, and of forming emulsions and/or microemulsions and/or micelles, and of absorption at water-solid interfaces, as defined by Regulation (EC) no. 648/2004. **Organic detergent:** detergent product that meets the requirements of these specifications. **Environmentally-friendly:** capable of meeting ecological needs, since it has low pollution impact. **Skin-compatible:** product that is well tolerated by the skin and by mucous membranes.

**Biodegradability:** the breakdown of material into simple chemical compounds through the action of natural agents.

**Organic Farming:** method deriving from or associated with production carried out in compliance with the provisions of Regulation (EC) no. 834/2007 and of Regulation (EC) no. 889/2008.

**Genetically Modified Organism (GMO):** any organism to which the definition contained in art. 3 of Regulation (EC) no. 1830/2003 applies.

**Ionising radiations:** treatment envisaged by Directive 1999/2/EC.

## 4. FIELD OF APPLICATION

The following products fall within the field of application of these specifications:

a) All detergents that can be used to wash by hand and in the dishwasher **dishes and cooking utensils**; simple products, natural substances that can be used during the cleaning cycle or that could fall within the formulation of detergents in order to grant them special functions (fragrances, softeners, rinse-aids, sequestrants, buffers to stabilise the pH, etc.);

- b) Detergents intended for the cleaning of **floors, walls, ceilings and other hard surfaces such as work counters, furniture, installations and equipment, automobiles, self-propelled vehicles, etc.**; simple products, natural substances that can be used during the cleaning cycle or that could fall within the formulation of detergents in order to grant them special functions (fragrances, softeners, rinse aids, sequestrants, buffers to stabilise the pH, etc.);
- c) Laundry detergents in powder, liquid or other form used **to wash fabrics by hand or in the washing machine**; simple products, natural substances that can be used during the cleaning cycle or that could fall within the formulation of detergents in order to grant them special functions (fragrances, softeners, rinse aids, sequestrants, buffers to stabilise the pH, etc.);
- d) Detergents intended for **cleaning and dirt removal operations in artisan workshops, factories and farms**, canteens, residential facilities, offices, production plants, hotels, holiday farms, sheds and stables, etc., and any closed place intended for the production, presence and permanence of human activities; simple products, natural substances that can be used during the cleaning cycle or that could fall within the formulation of detergents in order to grant them special functions (fragrances, softeners, rinse aids, sequestrants, buffers to stabilise the pH, etc.);
- e) Adjuvants, ingredients, raw materials, chemical aids, simple substances of natural or inorganic origin or **products authorised by Regulation (EC) no. 834 / 2007** that may be used during the cleaning cycle, including medical-surgical devices, or that may fall within the formulation of detergents in order to grant them special functions (softeners, rinse aids, sequestrants, buffers to stabilise the pH, etc.).
- f) Adjuvants, ingredients, raw materials, chemical aids, simple natural substances for the care of households (including room deodorisers and candles), automobiles, plants and pets.

## 5. MAIN NORMATIVE REFERENCES

- Regulation (EC) no. 648/2004 – DETERGENTS as subsequently updated;
- Regulation (EC) no. 907/2006 – DETERGENTS as subsequently updated;
- Italian D.P.R. no. 21 of 6 February 2009;
- European Regulation (EC) no. 66/2010 – ECOLABEL as subsequently updated;
- Decisions of the European Commission, in particular for the calculation of the CDVtox (Critical Dilution Volume);
- Regulation (EC) no. 834/2007 on organic production and labelling of organic products and which repeals Regulation (EEC) no. 2092/91;
- Regulation (EC) no. 889/2008 laying down detailed rules for implementation of Council Regulation (EC) no. 834/2007 on organic production and labelling of organic products, with regard to organic production, labelling and checks.
- Regulation (EC) no. 1272/2008 – CLP as subsequently updated;



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- Regulation (EC) no. 1907/2006 – REACH as subsequently updated.

## 6. RAW MATERIALS

The products certified in compliance with these specifications may include among their components the following raw materials:

- products of vegetable origin;
- products of animal origin;
- products of inorganic origin;
- products deriving from chemical synthesis processes;
- water.

All groups of raw materials have to comply with the characteristics indicated below and with the composition percentages provided in item 7 of these specifications.

During the extraction and purification phases, processes of a physical type are preferred. Irradiation with gamma rays or with x-rays for preservation purposes is forbidden.

For raw materials obtained from processes that use metal catalysts both during the homogeneous and heterogeneous phase, analytical reports shall be presented pertaining to the presence of heavy metals for the purpose of evaluating the environmental impact of these production processes. The formulating company shall be required to show the proper declaration pertaining to the disposal of any processing residue (EWC classification number – European Waste Catalogue) produced during the synthesis process and the authorisation for emission into the atmosphere, if any.

### 6.1 Vegetable raw materials

Vegetable raw materials, intended as plants or parts of plants, must preferably come from organic farming or certified spontaneous collection.

The organic production method must be certified in compliance with Regulation (EC) 834/2007 or with equivalent regulations; alternatively, the vegetable raw material can be certified in compliance with private standards recognised by the Control Body to be equivalent to these specifications.

The Control Body may accept, from time to time, raw materials other than the ones listed above, following the operator's presentation of suitable documentation.

For each detergent product certified pursuant to these specifications, at least one certified organic raw material must be used. In any case, vegetable raw materials that have been genetically modified or irradiated with ionising radiations are excluded.

Plants or parts of plants are also excluded when their use may put them at risk of extinction; the use of these raw materials is allowed if they come from cultivation.

For fragrances used in detergent formulations, only essential oils and other fragrances approved by the AIAB and complying with the code of good practice of the International Fragrance Association can be used.

## 6.2 Raw materials of animal origin

Raw materials of animal origin must be certified by organic farming so that the animal's well-being is effectively guaranteed.

The organic production method must be certified in compliance with Regulation (EC) 834/2007 or equivalent regulations. Alternatively, animal raw materials can be certified in compliance with private standards recognised by the Control Body to be equivalent to these specifications.

The Control Body may accept, from time to time, raw materials other than the ones listed above following the operator's presentation of suitable documentation.

Raw materials of animal origin cannot be used when their production entails killing the animal.

Raw materials obtained from fermentation are allowed.

Where the non-use of products of animal origin is demonstrated, the label of the formulations may indicate the following phrase: "Does not contain products of animal origin".

## 6.3 Inorganic raw materials

In raw materials of mineral origin, the content of metals which are known to be toxic (As, Pb, Cu, Ni, Cd, Zn, Hexavalent Cr, Sb) must be evaluated, so as to make sure there is no contamination and that said metals are present only in trace amounts. During the first year of application of these specifications, the level of said impurities in raw materials shall be monitored for the purpose of defining the maximum tolerable thresholds.

The use of acid and basic reagents of common use, employed in the synthesis processes of raw materials (hydrochloric, sulfuric, nitric and phosphoric acid, soda, potash, etc.) is allowed.

## 6.4 Raw materials of synthetic origin

### a) Surfactants – Emulsifiers

Documentation attesting the vegetable origin of alkyl chains used for the synthesis processes is requested. Surfactants or emulsifiers deriving from ethoxylation processes are not allowed.

### b) Other products

The use of products which are formulated in compliance with article 7 of these specifications, for which there are no valid alternatives of proven natural origin available on the market and for which the characteristics of environmental impact and skin impact have been positively evaluated, is allowed. The Control Body reserves itself the right to approve the use of any other products on the basis of the criteria adopted for allowed products.



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## 6.5 Water

Drinking, demineralised or osmotic water can be used.

## 7. PRODUCT FORMULATION

For each product, the exact quantitative and qualitative formulation must be indicated, along with the exact chemical description of the ingredients (identified as per the nomenclatures of IUPAC, DCI, CASNUMBER, STRUCTURE FORMULA), degree of purity, type and percentages of impurities present in the product indicated on the safety data sheet, all for the purpose of providing suitable evaluation tools for the certification. Based on the characteristics of the formulation and of the added raw materials, the safety data sheets, the technical sheets and the analysis certificates of the ingredients used in the product subject to certification shall be provided upon request.

The weight of the environmental impact (toxicity for aquatic organisms) of each ingredient shall be assessed with the value of the  $CDV_{TOX}$ , Critical Dilution Volume, which shall be calculated using the following formula:

$$CDV_{TOX} (\text{ingredient } i) = \frac{\text{weight/wash}(i) \times \text{loading factors}(i) \times 1000}{\text{Long term effects}(i)}$$

where

The Critical Dilution Value of a product consists of the sum of the  $CDV_{TOX}$  of all ingredients:

$$CDV_{TOX} = \sum_i CDV_{TOX} (\text{ingredient } i)$$

For the following categories of detergents, the obtained value shall not exceed the value indicated below:

- Hand dishwashing detergent – 3500
- Hard surfaces (floors, work counters, etc.) – 5000
- Liquid and powder detergents for washing by hand and in the washing machine – 200000
- Liquid and powder detergents for dishwashers – 20000
- Glass panes – 1500
- Toilet products and other ready-to-use products – 10000
- Softeners – 3000
- Household products – 10000

The calculation of the total  $CDV_{tox}$  does not take into account the organic essential oils used and the fragrances that comply with annex I of AIAB specifications.



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These values may be updated in a more restrictive sense following new formulation possibilities provided by scientific or technological progress. Moreover, in case of missing data, the Read-Across concepts can be considered in order to extrapolate valid and convincing data. These assessments shall be duly documented, described and signed by the Certification Evaluator.

No formulation may contain ingredients, at a percentage higher than 0.01 in weight, characterised by the following Risk Phrases (R) and Hazard Phrases (H):

| <b>Directive 67/548/EC<br/>Directive 1999/45/EC<br/>R-phrases</b> | <b>Regulation 1272/2008/EU<br/>H-phrases</b> |
|---|--|
| Carc.Cat.1: R45<br>Carc.Cat.2: R45                                | Carc.Cat.1A: H350<br>Carc.Cat.1B: H350       |
| Carc.Cat.1: R49<br>Carc.Cat.2: R49                                | Carc.Cat.1A: H350i<br>Carc.Cat.1B: H350i     |
| Carc.Cat.3: R40   | Carc.Cat.2: H351                             |
| Muta.Cat.2: R46   | Muta.Cat.1B: H340                            |
| Muta.Cat.3: R68   | Muta.Cat.2: H341                             |
| Repr.Cat.1: R60<br>Repr.Cat.2: R60                                | Repr.Cat.1A: H360F<br>Repr.Cat.1B: H360F     |
| Repr.Cat.1: R61<br>Repr.Cat.2: R61                                | Repr.Cat.1A: H360D<br>Repr.Cat.1B: H360D     |
| Repr.Cat.3: R62   | Carc.Cat.2: H361f                            |
| Repr.Cat.3: R63   | Carc.Cat.2: H361d                            |
| R50   | H400   |
| R50/53  | H400 H410                                    |
| R51/53  | H411   |
| R59   | EUH059                                       |
| R64   | H362   |

Likewise, the ingredients must not be classified as R42 (may cause sensitisation by inhalation) or as H334, except for Essential Oils and fragrances bearing the AIAB mark.

Substances classified as R43 (may cause sensitisation by skin) or as H317 must not be present at a percentage higher than 0.3%, except for Essential Oils and fragrances bearing the AIAB mark.

Potentially bioaccumulative substances are not allowed. A substance must be considered bioaccumulative if it has a Bio-Concentration Factor (BCF) > 100 or an octanol/water Partition Coefficient (log Kow) > 3.



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These specifications allow the use of natural bioaccumulative substances present in living organisms, such as, for example, vitamins.

The essential oils and fragrances bearing the AIAB mark are not taken into account when calculating the bioaccumulation potential.

The biodegradability of raw materials of organic origin – surfactants used, shall be documented.

The finished product must contain at least 95%, in weight, of ingredients of vegetable and/or animal origin (also including the water that forms them), and at least one ingredient from organic farming.

As for surfactants and other products obtained from chemical synthesis processes, the natural origin of the raw materials that provide the chain of carbon atoms that distinguishes said molecules must be demonstrated.

The organic carbon used in the synthesis of the surfactants contained in the finished product shall be of proven vegetable origin.

## **8. TREATMENT OF THE FINISHED PRODUCT**

The finished product cannot be irradiated.

Animal testing is not allowed.

## **9. PACKAGING**

Only recyclable and inert containers that do not release monomers harmful to man's health and hazardous for the environment are allowed.

The use of PVC is forbidden.

It is recommended to limit and, if possible, avoid the use of secondary packaging.

The communication aimed at the consumer shall emphasize re-use of the containers for refills, if applicable, that will have to be marketed together with the product. For the container, the use of single-material dispensing or spraying devices is preferable.

In the case of products requiring multi-material spraying or dispensing pump in the container (i.e., containing metal elements), it is recommended to:

- market this article in the "refill" version as well invite the consumer, through visible captions on the label, to re-use the pump as many times as possible. Indeed, the presence of the metal prevents proper recycling.

To encourage proper recycling, it is mandatory to use labels made of the same material as the bottle.

## **10. TESTS AND ANALYSES**

For simple products, semi-finished goods and raw materials, the tests will be prescribed from time to time by the Control Body following a preliminary assessment.

The results of these tests must be indicated in the label or in technical data sheets made available to the public.

## 11. LABELLING

In addition to the indications required by law, the label also has to contain instructions on product dosage and functionality, information on the ingredients, and the declaration of the ingredients listed in decreasing order of weight percentage and a summary explanation aimed at the consumer. The label must also contain the identification of ingredients from organic farming by means of an asterisk and an explanatory reference, the "Detergenza Pulita AIAB" mark and, optionally, the Control Body's logo and the caption "Detergent/household product with ingredients from organic farming".

Where the non-use of products of animal origin is demonstrated, the label of the formulations may indicate the following phrase: "Does not contain products of animal origin".

The AIAB and/or the Control body will post, on their respective websites, the list of certified products in order to allow informed consumption by the consumer.

On the label of adjuvant products, it is necessary to inform consumers with regard to the easy availability, on the market of natural products, of the commonly used components (e.g.: *"some ingredients of this product, ethyl alcohol, citric acid and Lemon essential oil, are commonly used substances that can be easily found on the market"*).

## 12. MARK

The "Detergenza Pulita AIAB" mark is illustrated here below:



This mark can be applied exclusively to labels and advertising material of products that meet the requirements of these specifications.

## 13. CHECKS AND SANCTIONS

These specifications are checked by the AIAB, which avails itself, through a licence agreement, of control bodies accredited according to standard UNI CEI EN ISO/IEC 17065:2012 "Conformity assessment – Requirements for bodies certifying products, processes and services".

In the event that a Control Body fails to comply with the requirements of this document, AIAB reserves itself the right to revoke its license.

In case an operator fails to comply with the provisions of these specifications, the Control Body reserves itself the right to not grant, revoke or suspend the authorisation to use the "Detergenza Pulita AIAB" mark.

### 13.1. Non-conformities

In case an operator fails to comply with the requirements of these specifications, the Control Body arranges for communicating the relevant non-conformity.

These specifications provide for two levels of non-conformity, proportionate to the possibility of affecting more or less the certification:

Irregularity: failure to comply with the formal aspects and with the required documentation, which doesn't entail prolonged or manifest effects such as to lead to substantial changes in the company status and that, in any event, doesn't alter the operator's reliability. In reference to the proportional principle, slight irregularities are distinguished from the important ones mainly since the former entail shortcomings while the latter entail a lack of the prescribed requirements.

Infraction: a non-fulfilment, blatant or having prolonged effects, of the obligations set forth in these specifications, due to the lack of certain elements that make up the documentation, or for the contravention of additional obligations assigned to the operator. In connection to the proportional principle, slight infractions distinguish themselves from important ones mainly due to the fact that the former allow the reversibility of the situation that has taken place.

### 13.2. Disciplinary measures

Within the scope of the two categories of non-conformities, based on the level of severity and on the proportional criterion, the following disciplinary measures shall be applied: warning, elimination of conformity indications, suspension of the certification and exclusion of the operator.

### 13.3. Corrective actions

In the event that non-compliance with the established standards is identified in connection with the operator's activities, said operator shall be required to implement the necessary corrective actions within the times and according to the methods determined from time to time, promptly communicating their implementation.

## 14. OTHER ALLOWED PRODUCTS

### Preservatives:

Benzoic acid and its derivatives, phenoxyethanol, sorbic acid and its derivatives, sodium dehydroacetate.

### Special preservatives for environments with pH higher than 9:

dichlorobenzyl alcohol, phenethyl alcohol, thymol.

### Other substances:

TAED only for powders, urea, maleic acid and malic acid.

Innovative substances of proven reliability, as per tests and laboratory testing, approved by the Control Body.