ECOGARANTIE®
SPECIFICATIONS

PART III
cleaning products

Rules and standards for the inspection and certification of ecological products

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info@ecogarantie.be • www.ecogarantie.com

VISION & MISSION

The vision of Ecogarantie®
Ecogarantie® is the Belgian trademark for ecological products. It serves as an instrument for the promotion and management of this kind of products.

Ecogarantie® verifies and guarantees the ecological quality of a given product. To develop its standards, Ecogarantie® takes into account social, ecological and economic aspects, while respecting both life cycle and ustainability throughout several generations.

The mission of Ecogarantie® includes
1. *helping consumers and companies to identify ecological products easily and reliably. Thereby guaranteeing as much as possible transparency for consumers and companies by manner of clear rules and complete labelling of the product.*
2. *verifying the use of the trademark Ecogarantie® on the ecological product. The ecological quality of the product is contained in the principle of obligatory means more so than in obligatory results. The presence of the mark aims at the ecological quality of the product in the field of durability, safety and minimal impact on the environment, low aquatic toxicity and good biodegradability and in the field of restriction of harmful minerals.*
3. *anticipating –in a strive towards continual amelioration of the own specifications- the positive evolution of the legislation by defining standards for areas not yet covered by the European legislation.*

This can be accomplished through
- *The specifications*
- *A (good) management of the trademark*
- *The independent system of certification and verification*

The products
Ingredients and methods of preparation are selected according to their ecological properties and origin.

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A. General purpose

1. The selection of the ingredients is based on the principles of sustainability and ecological responsibility. Agricultural ingredients come from organic farming, unless it can be proved that they are not available. If such is the case, it will be mentioned in the present specifications. Synthetic products, colouring agents and preservatives will not be used or used in a very restricted way. The positive list only mentions those substances which, because of their specific characteristics and their function in the product, cannot be replaced in the short run by a better and more ecological alternative. The use of genetically modified organisms (GMO's) or of GMO techniques in the production chain is forbidden.

2. The processes used in the production and processing may not be polluting and must respect both our health and the environment. This will be done by taking measures during the production process, as far as biodegradability, recycling of packages, waste products, … are concerned. The commercialisation of these quality washing products takes into account the wellbeing of the consumer by setting up clear rules as well as by favouring communication and transparency in the chain.

3. End produce may not be tested on animals. Alternative methods will be used.

4. The products meet the environmental requirements of the present specifications. Because it aims at a harmonisation of the rules at a European level, Bioforum npo, when establishing the list of environmental criteria, used the orders of the European Commission[1] for the specification of the environmental criteria used to grant the European label ("ecolabel").

B. Field of application

All ingredients and methods of preparation must conform to the European legislation and meet the additional stipulations of the present specifications.
Washing and cleaning products are not covered by EEC Regulation 2092/91 concerning organically-grown products and do therefore not need to be certified.
However, the raw materials that would be organically-grown in the framework of the Ecogarantie® specifications, must meet the requirements of EEC Regulation 2092/91 and/or the Biogarantie® standards.

The name "**washing products**" involves the following product groups

The product group '**all-purpose cleaners and cleaners for sanitary facilities'** shall be composed of the following three subgroups:
a) all-purpose cleaners comprising detergent products intended for the routine cleaning of floors, walls, ceilings, windows and other fixed surfaces, and which are dissolved or diluted in water prior to use. All purpose cleaners must have water content ≤ 90 % (w/w).
b) window cleaners comprising specific all-purpose cleaners for the routing cleaning of windows, and which are either diluted in water prior to use or used without dilution. All window cleaners must have water content ≤ 95 % (w/w).
c) cleaners for sanitary facilities comprising detergent products intended for the routine removal, including by scouring, of dirt and/or deposits in sanitary facilities, such as laundry rooms, bathrooms, showers, toilets and kitchens. All cleaners for sanitary facilities must have water content ≤ 90 % (w/w).
The subgroup specified in point (c) of the first paragraph shall not include the following:

[1] Order of the Commission of November 29th, 2002 for detergents used in dishwashers, of February 14th, 2003 for laundry detergents, of March 23rd, 2005 for hand dishwashing detergents, all-purpose cleaners and cleaners for sanitary facilities.

a) products which are automatically used when a toilet is flushed, such as 'self-dosing-products', including toilet blocks;
b) products for use in a toilet cistern;
c) products, which have no cleaning effects other than the removal of calcium carbonate (scale);
d) disinfectants.
The product group shall not cover products for more specific cleaning uses, such as oven cleaners, floor-strippers, polishes, drain cleaners, and so on.
The product group shall cover products for both private and professional use.

The product group '**hand dishwashing detergents'** shall comprise:
'all detergents intended to be used, to wash by hand, dishes, crockery, cutlery, pots, pans, kitchen utensils and so on'
The product group shall cover products for both private and professional use.

The product group '**detergents for dishwashers'** shall comprise all detergents intended for use exclusively in automatic domestic dishwashers and all detergents intended for use in automatic dishwashers operated by professional users but similar to automatic domestic dishwashers in terms of machine size and usage.

The product group **'laundry detergents'** shall comprise all laundry detergents, in powder, liquid or any other form, for the washing of textiles, and which are intended to be used principally in household machines, but not excluding the use in launderettes and common laundries.

This list is not comprehensive. Other product groups can be added in the future if necessary.

C. Use of the trademark

The label may carry the Ecogarantie® logo if the final product meets the requirements of the present specifications and has therefore been submitted to the control of one of the certified control organisations.

A complete ingredient declaration or slip with the INCI appellation must be mentioned on the label, regardless of the quantity involved, namely:
- enzymes: indication of the type (for example protease, lipase),
- preservatives: characterisation and labelling according to the IUPAC list,
- disinfectants: characterisation and labelling according to the IUPAC list.
If the product contains perfumes, this must be mentioned on the packaging.

Enzymes are authorised as long as they are not genetically modified or coming from genetically modified micro-organisms.

Reference to organic agriculture may be made for agricultural raw materials and semi-manufactured products which conform to the following texts:
- EC Regulation 2092/91 and its modifications
- Royal Decree of April 17th, 1992 and its modifications
- Ministerial Decree of October 30th, 1998 and its modifications
- the Ecogarantie® specifications, namely for the conditions regarding the physical and chemical/microbiological processes

The indications referring to organic production methods make it clear that they relate to a method of agricultural production and are accompanied by a reference to the ingredients of agricultural origin concerned unless such reference is clearly given in the list of ingredients.

If percentages of organic ingredients are mentioned on the packaging, the operator will communicate the method used for the calculation to the attention of the control body and mention it on the packaging. E.g. the operator will mention if the percentage refers to the total of ingredients or only to the vegetable ingredients.

The labelling refers to the name of the inspection body to which the operator is subject.

D. Preparation

D. 1. RAW MATERIALS AND PHYSICAL PROCESSES USED IN PROCESSING

D.1.1. Vegetable products

Vegetable products are authorised based on the following criteria:

Organically-grown and/or harvested from wild plants according to EC Regulation 2092/91 and its modifications.

Derogations can only be granted if a written substantiate file can be provided proving that:

- the technical quality
- and/or the quantity
- and/or the econonical viability

is not sufficient with the organic version.

The company has to motivate why it was not possible to find organic ingredients.

The technical committee will deal with this matter, in cooperation with the inspection bodies.

D.1.2. Animal products

Animal products are authorised based on the following criteria:

- not be part of the European and international list of protected species (see the Washington Convention or the Bern Convention)
- organically-grown if available
- are not used as main component

Positive list:

- ossengal for the production of soaps
- tallow in abrasives

D.1.3. Animal secretions

Authorised animal secretions are recorded in a positive list, based on the following criteria:

- organically-grown if available
- the exploitation of which has no detrimental effect on the ecological balance.

Positive list :

Authorised animal secretions
Butyris Lac
Butyrum
Caprae Lac (goat milk)
Cera alba
Cera flava
Lac (milk)
Lanolin
Lanolin cera
Mel
Ovum
Propolis Cera
Royal Jelly
Shellac

D.1.4. Minerals

Minerals are authorised based on the following criteria:

- Must be used for their intrinsic properties
- Their exploitation causes no pollution or damage to the landscape
- According to the purity criteria (see appendix A)
- Whole and unmodified
- No disinfection through gamma rays

It is the producer's duty to show the inspection body that he examined these elements while selecting his raw materials.

Examples of authorised products:

- alumina
- montmorillonite clay (bentonite)
- kaolin clay
- chalks
- sand
- talc
- drinkable water: spring water, reverse-osmose water, unmineralised water,…
- silicates
- …

Negative list:

- petroleum and its derivatives
- borium and its compounds
- phosphorus, phosphates and their derivatives (phosphonates,…)
- silicone and its derivatives
- mineral acids (H_3PO_4, HCl, H_2SO_4,… and their derivatives)
- mineral bases (with the exception of NaOH, $Ca(OH)_2$, $Mg(OH)_2$, KOH that are allowed if they do not exceed 0,05% in the preparation and if no other substance that causes irritation is mixed in)

D.1.5. Maritime products

Maritime products are authorised based on the following criteria:

For the vegetable maritime products: see criteria under point D.1.1
For the animal maritime products: see criteria under point D.1.2. and D.1.3.
For the mineral maritime products: see criteria under point D.1.4.

D.1.6. Gas

Authorised gasses are recorded in a positive list.

Positive list:

Authorised gasses
carbon dioxide
oxygen
nitrogen

D.1.7. Nature of the physical processes used

Raw materials may only be processed through very specific physical processes, which are recorded in a positive list based on the following criteria.

- processes that give good biodegradable molecules
- processes that respect the active substances
- processes that allow a good management of the waste and of the energy consumption

Positive list:

absorption (on an inert support[2])
decolouration, deodorisation (on an inert support[1])
grinding
centrifugation (separating solid substance from liquids)
clearance
dehydration, drying (by means of (non) gradual evaporation or sun radiation)
freezing/individually quick frozen
deterpenation (if fractioned steam distillation)
distillation or extraction (steam)
squeezing, crushing
extraction by means of following solvents: water ethylalcohol vegetable glycerin honey sugar vinegar carbon dioxide
filtering and purification (ultra-filtering, dialysis, electrolysis)
lyophilisation
blending
percolation
cold pressure
warm pressure (to extract according to the fluidity of the fatty acids)
sterilisation by means of heat treatment (according to the temperatures respecting the active substances) and UV (only for water)
sifting
maceration
solar extraction (eg. flower remedies)
cold extraction
vacuum
decoction (hot or cold)
Infusion (hot or cold)
post extraction filtration, micro filter, depth filter (with non-bleached filtering papers) blending different batches of extracted herbs to achieve a specified level of markers/actives concentration by evaporation, vacuum distillation, spray drying clarifying/precipitating agents (permitted additives or processing aids: see appendix VI of EC reg. 2092/91) nitrogen flushing pasteurisation

[2] Inert support: substance that has no chemical reaction with the original substance.

Examples of forbidden processes:

irradiation (X-rays)
ionising treatments (gamma rays)
extraction by means of following solvents: benzene butylene glycol hexane mineral oils petroleum-derived solvents propylene glycol
extraction with ultrasound[3]
post extraction
electron beaming
irradiation
post packaging sterilisation eg UV
rectification

[3] Precautionary principle: is forbidden as long as no study has proved the method to be innocuous.

D.2. SEMI-MANUFACTURED PRODUCTS OBTAINED THROUGH CHEMICAL/ MICROBIOLOGICAL PROCESSES FROM RENEWABLE RAW MATERIALS OR MINERALS

D.2.1. Nature of the chemical processes used

In order to produce a semimanufactured product, the raw materials may only be treated by means of specific chemical processes that are recorded in a positive list based on the following criteria:

- processes that give good biodegradable molecules
- processes that respect the naturally active substances
- processes that allow a good management of the waste and of the energy consumption

Positive list:

Alkylation
Calcination of vegetable residue
Carbonisation (resins, vegetable oils)
Condensation / addition
Deterpenation by means of steam
Esterification and trans-esterification
Etherification
Hydration
Hydrogenation
Hydrolysis
Neutralisation through bases
Neutralisation through acids
Oxidation/reduction
Production processes for amphoteres (amidification)
Saponification
Sulphatation
Roasting

Examples of forbidden processes:

Amidification in case of main components like the surfactants
Quaternisation
Decolouration, deodorisation (on a support of animal origin)
Sulfonation (in main reaction)
Treatments with ethylene oxide
Treatments with mercury (production of sodium and potassium hydroxide)
Propoxylation
Chlorine chemistry (chloric gasses, chlorine derivatives), with the exception of tap water

Remark about chlorine chemistry:
The use of chlorine chemistry should be restricted as much as possible. Substances as PVC are not authorised. The Ecogarantie® technical committee still has to determinate how strict the standards should be in that field. The use of choroacetic acid in order to synthetize carboxymethyl cellulose from cellulose will temporary be authorised.

D.2.2. Nature of the microbiological/biotechnological processes used

Microbiological/biotechnological processes are allowed based on the following criteria:

- from vegetable or animal raw materials

Examples of authorised processes:
in vitro cultivation, wild or controlled fermentation by means of micro-organisms, production of enzymes as far as they are not obtained from GMO technology

Negative list
Cloning, cell culture and methods based on genetically modified organisms (GMO): organism the genetic material of which has been modified in a way that cannot be naturally achieved through reproduction and/or recombination.

D.2.3. Semi-manufactured product of vegetable origin

Semi-manufactured products of vegetable origin are authorised based on the following criteria:

Only the raw materials and processes abovementioned are authorised. Exception is made for the organic quality of the raw materials: if they are not available in their organic version, raw materials from conventional agriculture may be used to produce the semi-manufactured product.

Examples of authorised semi-manufactured products

Betaine
Peracetic acid
Produce obtained through fermentation like ethanol, citric acid, formic acid,…
Tocopherol
Salts like sodium citrate, zinc gluconate, zinc lactate, zinc ricinoleate, zinc stearate,…

D.2.4. Semi-manufactured product of animal origin

Authorised semi-manufactured products of animal origin are recorded in a positive list based, among others, on the following criteria:

Only the abovementioned raw materials and processes are authorised. Exception is made for the organic quality of the raw materials: if they are not available in their organic version, conventional raw materials may be used to produce the semi-manufactured product.

Positive list

Authorised semi-manufactured products of animal origin
Beeswax acid
Behenyl Beeswax
Behenyl / isostearyl Beeswax
Hydrolysed milk protein
Lactis Proteinum
Lanolin alcohol

D.2.5. Semi-manufactured product of mineral origin

Authorised semi-manufactured products of mineral origin are recorded in a positive list based on the following criteria:

- the only raw materials and processes to be authorised are those defined above
- according to the purity criteria (see appendix A)

Positive list

Authorised semi-manufactured products of mineral origin
CI 77000 aluminium
CI 77007 lazzurite
CI 77163 bismuth oxychlorure
CI 77220 calcium carbonate
calcium sulphate
CI 77480 and CI 77491 iron oxides
CI 77492 iron hydroxide
CI 77499 iron oxides
iron sulphate
CI 77510 (bleu de Prusse)
CI 77711 magnesium oxide
CI 77820 silver
CI 77742 ammonium manganese diphosphate
CI 77891 titanium dioxide
CI 77947 zinc oxide
copper chlorophylle
cupric sulphate
hydrated silica
potassium carbonate
magnesium chloride
magnesium sulphate
manganese sulphate

potassium carbonate
potassium hydroxide
potassium sulphate
silver chloride
silver sulphate
Sodium aluminium silicate (NAS)
sodium bicarbonate
sodium carbonate
sodium percarbonate
sodium hydroxide
sodium silicate
sodium sulphate if < 5%
zinc gluconate
zinc lactate
zinc ricinoleate
zinc stearate
silicates
silicon dioxide
hydrogen peroxide

D.2.6. Semi-manufactured product of maritime origin

Authorised semi-manufactured products of maritime origin are recorded in a positive list based on the following criteria:

The only raw materials and processes to be authorised are those defined above. Exception is made for the organic quality of the raw materials: if they are not available in their organic version, conventional raw materials may be used to produce the semi-manufactured product.

Positive list :

Authorised semi-manufactured products of maritime origin
algin
carraghene
calcium alginate
chitosan
potassium alginate
xantophyll

D.2.7. Semi-manufactured products of microbial origin

Authorised semi-manufactured products of microbial origin are recorded in a positive list.

Positive list :

- xanthan
- enzymes (protease, amylase, lipase) as far as they are not obtained from GMO technology

Examples of forbidden semi-manufactured products :

Enzymes produced by GMO

D.2.8. Surfactants

Surfactants are authorised according to the following criteria:

- based only on the raw materials and processes as defined above
- petrochemical synthesis is ruled out of the manufacturing process"

Examples of authorised surfactants

Authorised surfactants
Condensates of proteins/fatty acids
Fatty acid esters
Any kind of soap produced from vegetable fatty acids and anorganic bases (sodium and potassium salts): Palmates, Cocoates, Olivates, Oleates,… and their blends. Exception: soaps based on resin acids from coniferous trees because of their high level of toxicity in water
Fatty alcohol sulphates from fatty alcohol of vegetable origin
Alkylsuphates of vegetable origin: Sodium Lauryl Sulphate, Sodium Coco Sulphate, Sodium Octyl Sulphate, Sodium Oleyl Sulphate.
Alkylglutamate of vegetable base
Lipoamines of vegetable origin: Sodium Lauroyl Lipoamines
Alkylpolyglucosides of vegetable origin: Decyl Glucoside, Lauryl Glucoside, Octyl Glucoside, Caprylyl/Capryl Glucoside
Alkylglucosides of vegetable origin: Sucrose Cocoate, Sucrose laurate

Examples of forbidden surfactants

Linear alkylbenzene sulfonate
Quats (quaternary ammonium connections)
Alkylphenol polyetheneglycolethers (EPEO) like nonylphenolenylethoxylaten
Alkylphenol ethoxylates (APEO) or other alkylphenol derivatives (APD's)
Amine ethoxylates
EO/PO polymers in bloc (EO=ethylene oxide, PO=propylene oxide)
Secondary alkane sulphonate (SAS)
Fatty alcohol ethoxylates
Toluolsulphonate
Amphoterics of vegetable base origin: Oleo Ampho Polyglycinate, Alkyl Amido Ampho Polypeptide Carboxylate

D.3. CHEMICALLY SYNTHESISED SEMI-MANUFACTURED PRODUCTS

Definition: ingredients produced by chemical synthesis

General rule: (petro)chemical synthesis is ruled out of the manufacturing process

Examples of forbidden chemically synthesised semi-manufactured products:

- chemically synthesised colouring agents
- chemically synthesised perfumes (phenol, cumolsulphonate,…) and auxiliary for perfumes (nitromusk connections,…)
- polycyclic musks
- chemically synthesised antioxidants
- chemically synthesised softeners
- chemically synthesised oils and fats
- silicones
- optical whitening agents
- chelatant agents based on EDTA and its salts
- polycarboxylates
- polyacrylates
- substances containing iodine
- formaldehyde
- glutaraldehyde
- glycol
- isopropanol and other synthetic alcohols
- cellulose thinner
- white spirit
- chlorinated hydrocarbons
- benzene and derivatives
- cetone

sulphamine acid and amidosulfonic acid

- …

Exceptions to the rule: "petrochemical synthesis is ruled out of the manufacturing process" can only be granted according the following criteria:

"A few exceptions are tolerated in these standards (in positive lists: see D.3.1 and D.3.2) when this kind of synthesis does not apply to a main component or when the substances concerned cannot be replaced in the short run by a better and more ecological alternative because of their specific properties and of their function in the product.

D.3.1. Additives

D.3.1.1. Preservatives in the ingredients

Positive list:

Authorised preservatives in the ingredients
acetic acid, its salts and esters
acid ascorbic, its salts and esters
benzoic acid, its salts and esters
benzyl alcohol
dehydroacetic acid
lactoperoxidase
salicylic acid and its salts
sorbic acid and its salts
silver chloride

D.3.1.2. Preservatives in the end product

Positive list

Authorised preservatives in the end product
acetic acid, its salts and esters
acid ascorbic, its salts and esters
benzoic acid, its salts and esters
benzylalcohol
dehydroacetic acid
lactoperoxidase
sorbic acid and its salts

D.3.2 Miscellaneous

Positive list

Polymers containing zinc
TAED
Baypure (tetrasodium iminodisuccinat and sodium polyaspartate)

D.4. PRODUCTION OF WASHING PRODUCTS

Only the physical and/or chemical processes recorded in the positive lists under D.1.7. and D.2.1. are authorised in the processing of ingredients (raw materials and semi-manufactured products see from D.1 to D.3) into a washing product.

End produce may not be tested on animals. The tests on the raw material are performed according to the legal rules and with respect of the animal well fair. Claiming “no animal testing” is forbidden.

D.5. ENVIRONMENTAL CRITERIA

D.5.1. Environmental criterion. Aerobic and anaerobic biodegradability of the organic substances

"Each organic substance that is present in the product must be easily biodegradable in aerobic and anaerobic conditions".

D.5.1.1. Aerobic biodegradability of all the organic substances present in the product

Each organic substance that is present in the product must be easily biodegradable.
Evaluation and control: The exact formula of the product, together with a description of the function of each ingredient, has to be submitted to the authorised body. Part A of the DID list (appendix I) indicates whether or not a specific surface active substance is aerobic biodegradable (surface active substances with a "R" in the column for aerobic biodegradability are easily biodegradable). For organic substances that are not listed in part A of the DID list, relevant data from literature or other sources as well as relevant test results proving that they are aerobic biodegradable will have to be submitted. The tests used to prove the easy biodegradability of a product must conform to EU Regulation # 648/2004 of the European Parliament and Council of March 31st, 2004 regarding detergents (1).
Organic substances are considered to be easily biodegradable when the biodegradability (mineralization) that is measured according to one of the following five tests, equals at least 60% after 28 days: CO2-headspacetest (OESO 310), CO2-development test (modified Sturm-test) (OESO 301B; appendix V, method C.4-C, by Regulation 67/548/EEC of the Council (2)), closed bottle test (OESO 301D; appendix V, method C.4-E, by Regulation 67/548/EEC), manometric respirometry (OESO 301F; appendix V, method C.4-D, by Regulation 67/548/EEC), MITI-(I) test (OESO 301C; appendix V, method C.4-F, by Regulation 67/548/EEC) or the equivalent ISO tests. Depending on the physical characteristics of the organic substance, one of the following tests can be used, when the biodegradability equals at least 70% in 28 days, to confirm the easy biodegradability of the substance: levelling test for diluted organic carbon (DOC) (OESO 310A; appendix V, method C.4-A, by Regulation 67/548/EEC), modified OESO screening test for DOC levelling (OESO 310E; appendix V, method C.4-B, by Regulation 67/548/EEC) or the equivalent ISO tests. When a testing method based on DOC measures is being used, its appropriateness must be proved, since such a method can also measure elimination instead of biodegradability. No adaptation can be made before the tests on aerobic biodegradability. The principle of the ten days window is not applicable.

(1) PD L 104 of 8/4/2004, p. 13.
(2) Directive 67/548/EEC of the Council of June 27th, 1967 regarding the adaptation of the legal and administrative regulations concerning the classification, the packaging and the characterisation of dangerous substances (PD 196 of 16.8.1967, p. 1).

D.5.1.2. Anaerobic biodegradability of organic substances

Each organic substance that is present in the product must be biodegradable in anaerobic conditions.
Evaluation and control: The exact formula of the product, together with a description of the function of each ingredient, has to be submitted to the authorised body. Part A of the DID list (appendix I) indicates whether or not a specific surface active substance is anaerobic biodegradable (surface active substances with a "Y" in the column for anaerobic biodegradability are biodegradable in anaerobic conditions). For organic substances that are not listed in part A of the DID list, relevant data from literature or other sources, as well as relevant test results proving that they are anaerobic biodegradable, will have to be submitted. The reference tests for anaerobic biodegradability are OESO 311, ISO 11734, Ecetoc # 28 (June 1988) or any equivalent method showing that the ultimate biodegradability in anaerobic conditions is of at least 60%. In order to prove the anaerobic biodegradability of at least 60%, test methods may be used in which the conditions of a relevant anaerobic environment are being simulated (see appendix II).

D.5.2. Environmental criterion Toxicity for aquatic organisms

Ingredients and end produce may not be toxic for aquatic organisms.

Soaps based on resin acids from coniferous trees are not allowed because of their high level of toxicity in water.

For **all-purpose cleaners**, the CDVtox may not exceed 20,000 l/functional unit.

For **cleaners for sanitary facilities**, the CDVtox may not exceed 100,000 l/100 g of product.

For **window cleaners**, the CDVtox may not exceed 5,000 l/100 g of product.

For **hand dishwashing detergents**, the CDVtox of the recommended dose per litre of soap suds may not exceed 4,200 l.

For each ingredient (i), the critical dilution volume for toxicity (CDVtox) is calculated as follows:

$$CDVtox\ (i) = weight\ (i) * DF\ (i) / TFchronic\ (i) * 1000$$

where weight (i) = the weight of the ingredient (in grams) per functional unit (all-purpose cleaners) or per 100 g of product (cleaners for sanitary facilities) or in the recommended dose for 1 litre of soap suds (for dishwashing detergents), DF (i) = the degradation factor and TF chronic (i) = the toxicity factor of the ingredient (in milligrams/litre).
The values of DF and TFchronic are expressed in part A of the DID list (appendix I). For ingredients not mentioned in the DID list, the applicant will fix the values according to the procedure of part B of the DID list (appendix I).
The CDVtox of a product equals the sum of the CDVtox values of all its ingredients.

$$CDVtox = \Sigma\ CDVtox\ (i)$$

For **detergents for dishwashers**, the CDVtox may not exceed 200 l/washing.

For **laundry detergents**, the CDVtox of the recommended dose may not exceed 4,500 l/washing.

For each ingredient (i), the critical dilution volume for toxicity (CDVtox) is calculated as follows:

$$CDVtox\ (i) = weight\ (i) * IF\ (i) / LTE\ (i) * 1000$$

where weight (i) is the weight of the ingredient per recommended dose, IF the impact factor and LTE the concentration of the ingredient causing a toxic effect in the long run.
The values of DF and TFchronic, as well as those of IF and LTE, are mentioned in part A of the DID list (appendix I). For ingredients not mentioned in the DID list, the applicant will fix the values according to the procedure of part B of the DID list (appendix I).
The CDVtox of a product equals the sum of the CDVtox values of all its ingredients.

$$CDVtox = \Sigma\ CDVtox\ (i)$$

Evaluation and control: The exact formula of the product and the CDVtox calculations proving that this criterion has been met must be submitted to the authorised body.

E. Packaging

E.1. THE PACKAGING / WATER CONTENT RATIO

(under construction: not compulsory until further notice)
The amount of packaging compared to the average usage dose of the detergent may not be too high. By limiting the water content (concentrated products), one also limits the amount of packaging per functional unit.

Criteria:

a) The primary packaging will have a volumetric packaging coefficient (VPC) of 1.9 at the most. This criterion does not apply to primary packaging that is made of at least 50% of recycled material.
The VPC is equal to the smallest rectangular body (a rectangular parallelepiped) that can be contained in the packaging, divided by the volume of the product in the packaging.

b) If no refills are supplied, the weight of the total primary packaging may not exceed 3.7 g/washing for tablets and 1.7 g/washing for all other products.

c) If refills are supplied, the weight of the total primary packaging may not exceed 7 g/washing, and the producer will have to supply refills. The weight of a refill may not exceed 1.7 g/washing.

d) In the case of all-purpose cleaners, the percentage of water must be ≤ 90 % (g/g) (in order to reduce the amount of packaging material to a minimum).

E.2. AUTHORISED KINDS OF PACKAGING

Besides the conditions stipulated under Part I D, the following criteria have to be applied:
- The materials must be recyclable (cardboard, PE, PP, PET) or compostable (bio plastics).
- If cardboard is being used, it has to contain at least 80% of recycled fibres.
- If at all possible, reusable packaging will be supplied to the consumer.

(the following text is under construction: not compulsory until further notice)
a) If the primary packaging is made of recycled material, reference must be made about it in accordance with ISO norm 14021 (“Environmental labelling and declarations – Own claims (type II environmental labelling)”).

b) The different parts of the primary packaging must be easy to separate in parts of one and the same material.

c) Plastics must be marked in accordance with Directive 94/62/EC of the European Parliament and Council of December 20th, 1994, concerning packaging and packaging waste (1), or in accordance with DIN 6120, parts 1 and 2, in combination with DIN 7728, part 1.

d) Primary plastic packaging must be marked in accordance with ISO 1043.

e) Air sprays using propellants are not authorised.

Evaluation and control: The applicant will submit a sample of the packaging, as well as a declaration stating that each section of this criterion has been met. He will submit to the authorised body a calculation of the weight of the primary packaging together with a declaration about the percentage of recycled material contained in the packaging. The definition of Directive 94/62/EC of the European Parliament and Council of December 20th, 1994 regarding packaging and packaging waste (2) applies to primary packaging.
(2) PD L 365 of 31.12.1994, p. 10

E.3. MENTION ON THE PACKAGING

Following text is to be mentioned on the packaging:

a) Information about and labelling of the ingredients
The company will refer to the legal rules laid down in the regulation CE 648/2004 from the European Parliament and the Council of March the 31rst, 2004 on detergents.
A complete ingredient declaration or slip with the INCI appellation must be mentioned on the label, regardless of the quantity involved, namely:
- enzymes: indication of the type (for example protease, lipase),
- preservatives: characterisation and labelling according to the IUPAC list,
- disinfectants: characterisation and labelling according to the IUPAC list.

If the product contains perfumes, this must be mentioned on the packaging.
(i) Official journal L 104, April the 8th, 2004 p 01-35.

Evaluation and control: The applicant will submit to the authorised body a sample of the packaging of the product, as well as a declaration stating that each section of this criterion has been met.

b) Information about the Ecogarantie label
More information can be found on the Ecogarantie website www.ecogarantie.eu

Following information can be added to the label if it is big enough, or be inserted in folders:

a) Prescriptions in terms of doses
The packaging of the product must mention the dosing instructions. For laundry detergents and detergents for dishwashers, the recommended doses must be given for “normally dirty” and “very dirty” goods, as well as for the relevant water hardness degrees in the different countries where the product will be commercialised. The instructions must indicate how best to use the product according to the degree of dirt. The recommended doses for water hardness 1 (soft water), “normally dirty” goods, and for the highest degree of water hardness 3 or 4, “very dirty” goods, may differ at the most by factor 2.

The packaging of all-purpose cleaners must give a recommendation for an exact dose by means of a pictogram (such as a bucket of 5 l and several caps with ml).
The packaging of concentrated cleaners for sanitary facilities must clearly indicate that, compared to normal (i.e. not concentrated) products, only a small quantity is required.

The packaging of hand dishwashing detergents must mention the following information:
- the text below (possibly with a pictogram) with information in a reasonable size and against a visible background:

Recommended dose for 5 litre soap suds:	
Not very dirty:	x ml (y teaspoons) detergent
Dirty:	z ml (w teaspoons) detergent

  X,y,z must be specified by the applicant and/or producer.
  The text will use millilitres as unit. A second common unit, such as teaspoons (which are used in the above-mentioned pictogram), will be given between brackets. If the packaging has an easy and efficient dosing system, giving a reliable dosing, another unit (such as caps or jets) may be used.
- the number of uses the consumer should more or less be able to derive from one bottle.
  This is calculated by dividing the quantity of product in one bottle by the recommended dose (mentioned in the pictogram) for 5 litre soap suds and dirty dishes.

The applicant will take the necessary measures to ensure that the consumer uses the recommended dose by giving, for instance, a dosing system (for powders or liquid products) and/or by at least mentioning in ml the recommended dose (for powders or liquid products). The packaging should also urge the consumer to inquire with the local water supplier or local authority about the degree of hardness of the mains water.
If the dosing instructions are given by means of a dosing device, the volume of the device (in ml) must also clearly show on the packaging.

The packaging must mention the following text (or a similar one):
“Do not use too much: in so doing, you will save money and cause less damage to the environment”.

b) Information on the packaging
Following text (or a similar one) must be mentioned on laundry detergents:
“AN ECOLOGICAL LAUNDRY IMPLIES:
- to sort the laundry (for example according to colour, degree of dirt, kind of fibre),
- to wash only when the washer is full,
- to choose washing programmes running on low temperatures.

You will help to diminish water pollution, to reduce the amount of waste and the consumption of energy by using this environmentally labelled product and by following the above-mentioned instructions.”

The packaging of hand dishwashing detergents must mention the following information:
- The text “Do not use running water but dip the dishes in the suds and use the recommended dose. In so doing, you will wash your dishes in the most efficient way, you will save water and energy and contribute to a clean environment. The best way to wash your dishes does not require a huge amount of lather” (or a similar text).

c) Information about the Ecogarantie label and the company
Detailed information about the detergent must be given upon request. Therefore the packaging will mention the fact that, if the consumer wants to know more about the detergent, he/she can get in touch with the customer service of the company.
The following text will be added in a frame:
In the case of products carrying an Ecogarantie® label, the ingredients and methods of preparation are selected according to their origin and their ecological responsibility. Agricultural raw materials are preferably organically-grown. These products have been controlled by independent certification organisations.
The Ecogarantie® products:
- cause less damage to aquatic animals and plants
- help to reduce the use of resources
- help to reduce water pollution
- help to reduce the amount of packaging

d) Security advice
The product must mention the following security advice (or a similar text) (in the form of a written text as well as in the form of a matching pictogram):
„Keep away from children”
„Do not mix with other cleaning products”
„Do not breathe the spray of the product” (*NB*: only for products in a spray can).

F. Company

F.1. Traceability
The company must be able to prove that it meets the legal regulations in terms of washing products production and that it busies itself with a system such as HACCP and traceability.

Control plan
Following procedures must be set up:
- a file per product, containing all the guarantees from the suppliers (analyses and certificates as to the origin of the ingredients and of the production processes)
- a program of the risk analyses in order to supplement and verify the guarantees from the suppliers
- guarantees concerning the production of raw materials, which may not damage the environment
- a description of the conformity procedures on end products

F.2. Energy consumption
The electricity used for the production and packaging must come from renewable sources of energy (green electricity). Efforts will be made by the mother company to insure green energy in the whole channel by making its subcontractors sign a letter of intention. The letter of intention will allow the subcontractors to convert their companies with green energy within a period of three years.

F.3. Cleaning and disinfection of the company
The company must be cleaned with ecological products and methods.

F.4. Transparency, communication, advertising and claims
The communication, advertising and claims of the firm about its whole range and any of the products should be true and will not mislead the consumers.
Claiming “no animal testing” is forbidden.
The sentence “our products are only plant based” should be submitted to the inspection bodies for approval.

Appendix A Purity criteria for raw materials and ingredients

Basic principle

Raw materials must remain authentic (not chemically processed) and devoid of any kind of contamination. Semi-manufactured products may not be polluted through any form of contamination.

List of possible contaminations

Besides the forbidden substances mentioned in appendix II of Directive 76/768/EEC concerning cosmetic products, cosmetics have to be devoid of:

- mycotoxines
- PCB and PCDD/F
- residues of pesticides (insecticides, fungicides, herbicides, …)

Establishing the maximal values

The maximal values in terms of contamination are those of the general regulation.
If no maximal value has been established by the general regulation, the detection level will be applied.