



REACH & PROHIBITED SUBSTANCES SPECIFICATIONS

Certificate

The Supplier acknowledges that all items purchased by any brand of ETAM Group do not contain any prohibited substance or within the strictly regulated proportions detailed in the following document.

By accepting an order, the Supplier fully supports and commits to comply with all the requirements listed in these specifications.

The Supplier commits to approve on the ETAM Group Suppliers portal the REACH Specifications and Prohibited substances.

Introduction

In order to achieve a high level of protection of human health and the environment, but also to improve the circulation of information on the specific hazards of chemical substances and the risks linked to their use, **European Regulation (EC no. 1907/2006 of the 18th of December 2006, known as the “REACH” Regulation**, was adopted to define the duties and obligations of manufacturers, importers and downstream users of substances which are contained in preparations or items or which are releasable.

This regulation compels manufacturers and importers in particular to register chemical substances produced or imported into the European Union with the European Chemicals Agency ([ECHA](#)). These substances will then be evaluated, and their use may be restricted or even prohibited.

As a distributor we are responsible for the products marketed. We expect from you, as manufacturer and/or importer, to comply with these regulations for all our orders.

A list of substances which are totally prohibited or tolerated in a certain proportion has henceforth been drawn up for the textile sector. Thus, as an ETAM Group supplier, you must either not use the substances listed below or use them in the tolerated proportions defined.

Concerning releasable substances, in particular all items called cosmetictextile with micro-encapsulation and items as candles, diffusers, soaps, scents ... etc., for which the release of substances is predictable and intentional, you must:

- inform us in advance of the nature of the substances
- provide us with proof of their registration for the defined use of our product with ECHA by you, your exclusive representative in Europe (name to be communicated to us) or by the manufacturer (for the defined use of our product).

You have to bear in mind that this list is likely to be updated twice a year in accordance with registrations and evaluations carried out by the ECHA. As soon as available, an updated list will be sent to you (if the update is linked to products we market) and must be applied immediately by your Company. Consequently, you must approve each new update online using your personal account, so that you confirm us for all items ordered by the ETAM Group:

the absence of these substances or their presence in authorized proportions,
the registration by you or by the manufacturer of all releasable substances.

In addition, we reserve the right to ask you for test reports, issued by one of our approved laboratories, on tests carried out for one or more items.

In order to get the shipment authorization, you must provide the requested test reports attesting your compliance with these specifications.

Failure to approve or comply with these specifications may lead to the immediate termination of our commercial relations. Moreover, we also reserve the right to claim damages from you for the loss incurred.

The specification is based on the 3 following lists of Regulation (CE n°1907/2006) named « REACH »:

- **Annex XVII :**

This Annex is the list of substances subject to restriction. These substances are listed with requirements and by product type.

- **The Candidate List of SVHC:**

Substances on this list are named SVHC (« Substances of Very High Concern ») or substances of very high concern. We remind you of your obligations to notify us of the presence of substances of concern in our items or sub-items, in excess of 0.1% of the total weight of each sub-item, as soon as they appear on the candidate list.

The list of candidate substances is published on the website of the European Chemicals Agency (ECHA) : <http://echa.europa.eu/web/guest/candidate-list-table>.

You must provide us with the name of the substance, the concentration on the sub-items and the health and environmental precautionary measures to be taken and inform us of the substitution actions taken and the possible consequences on the actual or perceived quality of the product.

- **Annex XIV :**

This is the list of substances subject to authorisation. We prohibit the presence in our items of all the substances in Annex XIV as well as those on the candidate list (tolerated content less than 0.1% only for the latter).

The limit applies in relation to the total weight of the homogeneous part of an item and not to the weight of the product as a whole (partial examples of items: zippers, boutons...).

This regulation is in addition to the **General Product Safety Directive (Directive 2001/95/CE)** which imposes a general safety obligation on any product placed on the market intended for consumers. The respect of consumer safety is one of the priorities of the ETAM Group.

As a result, the ETAM group requires its suppliers to comply with the following regulatory texts:

- **POP Regulation – Regulation CE 2019/1021 :**

POP (Persistent Organic Pollutants) regulation refers to a group of organic substances having 4 characteristics:

- ✓ **persistents:** the substance deteriorates itself « slowly »,
- ✓ **bioaccumulatives:** the substance « accumulates » within living beings,
- ✓ **toxicals:** Exposure to the substance may cause harmful effects,
- ✓ **mobiles** over long distances: measurement of high concentrations far from discharge points (e.g. in the Arctique).

Thus, the POPs Regulation prohibits the production, placing on the market and the use of the substances listed in Annex I either on their own, in preparations or as constituents of items (Article 3.1). It also restricts the production, placing on the market and use of substances listed in Annex II under the conditions of that Annex (Article 3.2). When a substance is listed in the Convention or the Protocol, the Commission shall, where it's appropriate, amend Annexes I and II accordingly (Article 14).

- **Packaging Directive 94/62/CE :**

You must comply with the Directive 94/62/EC related to packaging. This regulation prohibits a total lead, cadmium, mercury and chromium VI concentration of more than **100 ppm** (for covers, hangers, plastic or paper bags, point-of sale advertising materials, etc.).

Finally, in order to meet the current European standards and to grant our customers high security requirement, we enclose below a list of the substances which are totally prohibited or tolerated to a certain extent by the ETAM Group.

1° - AZO DYES AND ARYLAMINE SALTS	5
2° - ALLERGENIC AND CARCINOGENIC DYES.....	7
3° - PIGMENTS.....	9
4° - QUINOLINE.....	9
5° - CHLORINATED ORGANIC CARRIERS (COC.....	9
6° - CHROMIUM SALTS	10
7° - DIMETHYLFUMARATE	10
8° - ORGANO TINS	10
9° - PFOAs (AND ITS SALTS) AND PFOS	11
10° - FORMALDEHYDE	11
11° - PHTHALATES	11
12° - POLYCYCLIC AROMATIC HYDROCARBONS (PAH).....	13
13° - VOLATILE ORGANIQUE COMPOUND (VOC)	13
14° - BROMINE FLAME RETARDENTS.....	14
15° - SHORT CHAIN CHLORINATED PARAFFIN (SCCP)	14
16° - POLYCHLORINATED PHENOLS	15
17° - EXTRACTABLE HEAVY METALS.....	15
18° - CHROMIUM VI.....	16
19° - LEAD.....	16
20° - CADMIUM	16
21° - NICKEL.....	17
22° - AP/APE/APEO ALKYLPHENOLS AND NP/NPE/NPEO NONYPHENOLS.....	17
23° - TRICHLOROETHYLENE	18
24° - PH OF THE AQUEOUS EXTRACT	18
25° - PESTICIDES	18

1°- Azo dyes and arylamine salts

According to the Entries 43 and 72 (from November 2020) of the Annex XVII of REACH:

Azo dyes can release carcinogenic aromatic amines while degrading. The maximum concentration allowed by REACH is **30 ppm**¹.

To detect the presence of aromatic amines, use standard: **EN 14362-1 and 3: 2017**

For **leather** items, use standard **ISO 17234-1 and 2**.

The 24 carcinogenic amines are listed below:

CAS no.	Substances	EC no.
92-67-1	Biphenyl-4-ylamine 4-aminobiphényl Xenylamine	202-177-1
92-87-5	Benzidine	202-199-1
95-69-2	4-chloro-o-toluidine	202-441-6
92-59-8	2-naphtylamine	202-080-4
97-56-3	O-aminoazotoluene. 4-amino-2',3-dimethylazobenzène 4-o-tolylazo-o-toluidine	202-591-2
99-55-8	5-nitro-o-toluidine	202-765-8
106-47-8	4-chloroaniline	203-401-0
615-05-4	4-methoxy-m-phenylenediamine	210-406-1
101-77-9	4,4-methylenedianiline 4,4'-diaminodiphénylméthane	202-974-4
91-94-1	3,3'-dichlorobenzidine 3,3'-dichlorobiphenyl-4,4'-ylenediamine	202-109-0
119-90-4	3,3'-dimethoxybenzidine O-dianisidine	204-355-4
119-93-7	3,3'-dimethylbenzidine. 4,4'-bi-o-toluidine	204-358-0
838-88-0	4,4'-methylenedi-o-toluidine	212-658-8
120-71-8	6-methoxy-m-toluidine p-cresidine	204-419-1

¹ 1ppm = 1 mg / kg

CAS no.	Substances	EC no.
101-14-4	4,4'-methylene-bis-(2-chloro-aniline) 2,2'-dichloro-4,4'-methylene-dianiline	202-918-9
101-80-4	4,4'-oxydianiline	202-977-0
139-65-1	4,4'-thiodianiline	205-370-9
95-53-4	o-toluidine 2-aminotoluene	202-429-0
95-80-7	4-methyl-m-phenylenediamine	202-453-1
137-17-7	2,4,5-trimethylaniline	205-282-0
90-04-0	o-anisidine 2-methoxyaniline	201-963-1
60-09-3	4-amino azobenzene	200-453-6
95-68-1	2,4 xylidine	202-440-0
87-62-7	2,6 xylidine	201-758-7

Arylamine salts:

CAS no.	Substances
3165-93-3	4-chloro-o-toluidinium chloride
553-00-4	2-Naphthylammoniumacetate
39156-41-7	4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate
21436-97-5	2,4,5-trimethylaniline hydrochloride

Arylamine salts are substances derived from azo dyes.

2° - Allergenic and carcinogenic dyes

According to General Product Safety Directive and the entry 72 of the Annex XVII of REACH:

The maximum accepted level for allergenic and carcinogenic dyes is **50 ppm**.

Testing method: **DIN 54231: 2005**

These dyes are listed below:

Allergenic dyes – European Ecolabel standard:

CAS no.	C.I General name	C.I Structural number
2475-45-8	C.I Disperse blue 1	C.I 64 500
2475-46-9	C.I Disperse blue 3	C.I. 61 505
3179-90-6	C.I Disperse blue 7	C.I .62 500
3860-63-7	C.I Disperse blue 26	C.I 063 305
12222-75-2	C.I Disperse blue 35	
12222-97-8	C.I Disperse blue 102	
12223-01-7	C.I Disperse blue 106	
61951-51-7	C.I Disperse blue 124	
23355-64-8	C.I disperse brown 1	
2581-69-3	C.I Disperse orange 1	C.I .11 080
730-40-5	C.I Disperse orange 3	C.I .11 005
13301-61-6	C.I Disperse orange 37/76	
2872-52-8	C.I disperse red 1	C.I .11 110
2872-48-2	C.I disperse red 11	C.I .62 015
3179-89-3	C.I disperse red 17	C.I .11 210
119-15-3	C.I disperse yellow 1	C.I .10 345
2832-40-8	C.I disperse yellow 3	C.I .11 855
6373-73-5	C.I disperse yellow 9	C.I .10 375
12236-29-2	C.I disperse yellow 39	
54824-37-2	C.I disperse yellow 49	

List of carcinogenic, mutagenic or reprotoxic dyes classified under Regulation 1272/2008:

CAS no.	C.I General name	C.I Structural number
2475-45-8	C.I Disperse blue 1	C.I 64 500
3761-53-3	C.I Acid red 26	C.I 16 150
569-61-9	C.I Basic red 9	C.I 42 500
548-62-9	C.I Basic Violet 3	
632-99-5	C.I Basic violet 14	C.I 42 510
1937-37-7	C.I Direct black 38	C.I 30 235
2602-46-2	C.I Direct blue 6	C.I 22 610
573-58-0	C.I Direct red 28	C.I 22 120
16071-86-6	C.I Direct Brown 95	
2832-40-8	C.I Disperse yellow 3	C.I 11 855
82-28-0	C.I Disperse orange 11	C.I 60 700
60-09-3	C.I. Solvent Yellow 1	
60-11-7	C.I. Solvent Yellow 2	
97-56-3	C.I. Solvent Yellow 3	

Other prohibited dyes :

CAS no.	C.I General name
85136-74-9	C.I Disperse orange 149
6250-23-3	C.I disperse yellow 23

3° - Pigments

According to the SVHC candidate list of REACH and the Annex XIV of REACH:

The following pigments used for plastic dyeing are also prohibited in all items:

- ✓ Lead sulfochromate yellow (CAS n° 1344-37-2)
- ✓ Lead chromate molybdate sulfate red (CAS n° 12656-85-8)
- ✓ Lead chromate (CAS n° 7758-97-6)

4° - Quinoline

According to the entry 72 of the Annex XVII of REACH:

Quinoline is used in the manufacture of dyes or as a solvent in resins.

The limit is set at **50mg/kg** and **the in-house test method can be carried out in the laboratory.**

5° - Chlorinated Organic Carriers (COC)

According to the entry 72 of the Annex XVII of REACH:

Chlorinated Organic Carriers are used as dyes carriers and homogenizing agents in dyes, for polyester and mixed polyester in particular. They can also be used as solvents in dyes or as intermediates in the synthesis of other chemical compounds.

For each substance, the limit is set at **1mg/kg**.

Use the standard **EN 17137**.

CAS no.	Substances
98-07-7	α,α,α trichlorotoluene
100-44-7	α chlorotoluene
5216-25-1	$\alpha,\alpha,\alpha, 4$ trétrachlorotoluene

6° - Chromium salts

According to the SVHC Candidate List and the Annex XIV of REACH:

These substances can be used in the textile industry as mordants, particularly in dyeing with natural dyes or mordant dyes, as an oxidising agent particularly for dyeing with sulphur dyes, and for the manufacturing of dyes.

- ✓ sodium chromate,
- ✓ potassium chromate,
- ✓ ammonium dichromate
- ✓ potassium dichromate

7° - Dimethylfumarate

According to the entry 61 of the Annex XVII of REACH:

We prohibit the use of dimethylfumarate (CAS 624-49-7, EC 210-849-0) for all our items and at any stage of the process: manufacture, storage or shipping...

No items containing dimethylfumarate (a highly allergenic fungicidal chemical substance) must be marketed with a concentration up to **0.1 mg/kg (0.1ppm)**.

Testing method: **Solvent extraction by IHTM or GC-MS.**

8° - Organo tins

According to the entry 20 of the Annex XVII of REACH:

For the following organo tins listed below:

- ✓ TBT (tributyltin) and TPhT (triphenyltins) in all items
- ✓ DBT (dibutyltin) in all items
- ✓ DOT (dioctyltin) in certain items (in particular textile items in direct and prolonged contact with the skin)

The maximum accepted level is **0.1% by weight of tin per substance**.

Standardized testing method: **BS ISO 17353: 2004 or IHTM.**

9°- PFOAs (and its salts) and PFOS

According to the entry 68 of the Annex XVII of REACH (from 4th of July 2020) and the POP Regulation:

We prohibit the use of PFOAs (and its salts) and PFOS in coated textiles (such as fabrics treated with anti-stain, water-repellent...)

- ✓ PFOAs and its salts are limited to 25ppb².
- ✓ The derived substances of PFOAs are limited to 1000ppb.
- ✓ PFOS are limited to 0.1 µg/m² of coated materials.

Testing method: CEN/TS 15968: 2010, or IHTM, or LC-MS.

10° - Formaldehyde

According to entry 72 of the Annex XVII of REACH:

In the textile industry, formaldehyde (CAS 50-00-0) is used in resins which gives fabrics a stiffening textiles and crease-resistant effect, and more generally to provide dimensional stability. It also used in printing and pigment dyeing, as a preservative, and in the leather industry for tanning or as a finishing agent.

The maximum accepted content of formaldehyde is set at **less than 75 ppm**.

To determine the formaldehyde level, use the standard **ISO 14184-1**.

For leather case, use the standard **ISO 17226-1**.

11°- Phthalates

According to entries 51, 52 and 72 of the Annex XVII, the Annex XIV and SVHC Candidate List of REACH:

Phthalates are plasticizers used in the manufacture of polymers (mainly PVC) and in various steps of the textile production process. Their use improves the malleability of plastic materials and facilitates their moulding by lowering their glass transition temperature. These phthalates are mainly found in the polymer films of textile coatings.

The limit is set at **0.1% of the total weight of the item (homogenous part of item)**.

To determine the phthalate level, use the standard **NF EN 14389: 2014**.

² 1 ppb = 1 µg/kg

Since they are proven to be reprotoxic, we prohibit the use in our products of any of the following plasticizers:

CAS no.	Substances
28553-12-0 68515-48-0	Di-iso-nonylphthalate (DINP)
117-84-0	Di-n-octylphthalate (DNOP)
26761-40-0 68515-49-1	Di-isodecyl phthalate (DIDP)
117-81-7	Bis-(2 ethylhexyl)-phtalate (DEHP)
85-68-7	Benzyl butyl phthalate (BBP)
84-74-2	Dibutyl phtalate (DBP)
84-69-5	Diisobutyl phtalate (DIBP)
71888-89-6	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)
131-18-0	Di-n-pentyl phtalate (DnPP)
605-50-5	Diisopentylphtalate (DiPP)
117-82-8	Bis(2-methoxyethyl) phtalate (DMEP)
84777-06-0	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear
68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)
84-61-7	Dicyclohexyl phtalate (DCHP)
68515-50-4	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear
68515-51-5 / 68648-93-1	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate
71850-09-4	Diisohexyl phtalate
776297-69-9	N-pentyl-isopentylphthalate (nPiPP)
84-75-3	Di-n-hexyl phtalate (DnHP)

12° - Polycyclic Aromatic Hydrocarbons (PAH)

According to the entries 50 and 72 of the Annex XVII of REACH:

This restriction applies to rubber or plastic components that come into direct and prolonged contact or into direct, brief and repeated contact with the human skin or oral cavity. This restriction also applies to synthetic fibers.

The limit is set at **1mg/kg**.

Testing method (on all materials): **AfPS GS 2019: 01 PAK**.

CAS no.	Substances
50-32-8	BaP Benzo[a]pyrene
192-97-2	BeP Benzo[e]pyrene
56-55-3	BaA Benzo[a]anthracene
218-01-9	CHR Chrysen
205-99-2	BbFA Benzo[b]fluoranthene
205-82-3	BjFA Benzo[j]fluoranthene
207-08-9	BkFA Benzo[k]fluoranthene
53-70-3	DBAhA Dibenzo[a,h]anthracene

13° - Volatile Organique Compound (VOC)

According to the entry 72 of the Annex XVII and the Annex XIV of REACH:

- ✓ Benzene (CAS 71-43-2) is a solvent used in rubbers, plastics, adhesives, lubricants, etc.

The limit is set at **5mg/kg**.

The standard is **Headscape GC-MS**.

- ✓ DMAC - N,N-Dimethylacetamide (CAS : 127-19-5) is a solvent that can be used in the spinning of elastane and acrylic fibers.
- ✓ DMFa – N,N-Dimethylformamide (CAS : 68-12-2) is a solvent that can be used in the production of acrylic fibers or used in tempered polyurethane (PU) coatings.
- ✓ NMP - N-méthyl-2-pyrrolidone (CAS : 872-50-4) is a solvent that can be used in the manufacture of synthetic fibers (polymer production, polyester spinning).

For DMF, DMAC and NMP the limit is set at **3000 mg/kg**.

Use the standard is **ISO/TS 16189**.

CAS no.	Substances
106-94-5	1-bromopropane
111-96-6	Bis(2-methoxyethyl) ether

In-house testing methods in laboratory:

US EPA 8260C :2006 – VOC- Analysis by GC-MS – for flip flops

EPA Method 3585

EPA Method 50000

14° - Bromine Flame Retardants

According to the Annex XIV and the Annex XVII of REACH and POP Regulation:

Bromine Flame Retardants (PBB, TRIS, TEPA, TCEP, PentaBDE, OctaBDE, HBCDD, HBB, HeptaBDE, HexaBDE, PCB, TetraBDE)

Testing method: **Solvent Extraction GC-MS/GC-NPD / LC-MS**

CAS no.	Substances	Limits
115-96-8	Tris(2-chloroethyl)phosphate (TCEP)	5mg/kg
32536-52-0	Diphenylether, octabromo derivative (OctaBDE)	1000 mg/kg
59536-65-1	Polybromobiphenyls, Polybrominatedbyphenyls (PBB)	5mg/kg
36355-01-8	Hexabromobiphenyl (HBB)	Non detected
126-72-7	Tris (2,3 dibromopropyl) phosphate (TRIS)	5mg/kg
545-55-1	Tris(aziridiny)phosphin oxide (TEPA)	5mg/kg
1163-19-5	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	500mg/kg
3194-55-6 ; 25637-99-4 ; 134237-50-6 ; 134237-51-7 ; 134237-52-8	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (Alpha-hexabromocyclododecane ; Beta-hexabromocyclododecane ; Gamma-hexabromocyclododecane)	500mg/kg
-	Heptabromodiphenylether (HeptaBDE)	500mg/kg
-	Hexabromodiphenylether (HexaBDE)	500mg/kg
32534-81-9	Pentabromodiphenylether (PentaBDE)	500mg/kg
-	Polychlorinated Naphtalene (PCN)	500mg/kg
-	Polychlorobiphenyles (PCB)	500mg/kg
-	Tetrabromodiphenylether (TetraBDE)	500mg/kg

15° - Short Chain Chlorinated Paraffin (SCCP)

According to the SVHC Candidate List of REACH and POP Regulation:

SCCP is used as a chlorinated flame retardent and plasticizer.

The limit set at **0,1%**.

Testing method: **Solvent Extraction GC-MS/GC-NPD / LC-MS**.

16° - Polychlorinated phenols

According to POP Regulation:

Polychlorinated phenols (pentachlorophenol PCP, tetrachlorophenol TeCP and their TrCP derivatives), are used as antifungal agents for natural cellulosic materials (during cultivation, storage and transport) and also as a preservative. They should therefore be tested in silk, wool (>30% of the weight of the sub-items) and viscose fabrics.

Polychlorinated phenols must **not be detected (0.5 ppm)**.

To determine pentachlorophenol level, use the method « **modified §64 LFGB BVL B82.02.8** » with alkaline digestion for textile and the standard **ISO 17070 for leather**.

17° - Extractable heavy metals

According to the entry 72 of the Annex XVII of REACH and Oekotex® Standard 100:

The restriction on extractable heavy metals applies to garments and textile accessories, shoes or other textile items for which the contact with the skin is the same than for garments. It doesn't apply to leather items or parts of leather items, or to non-textile fasteners and ties.

Determination of the presence of extractable heavy metals is carried out by dissolving in an artificial mild acidic solution (ISO 105 E04: 2008). Use the standard **EN 16711-2**.

Below is a list of the heavy metals concerned with their concentration limits by weight after extraction not to be exceeded in our products.

Heavy metals	Concentration limit by weight after extraction
Arsenic	1 ppm
Chromium	1 ppm
Lead	1 ppm
Cadmium	0.1 ppm
Mercury	0.02 ppm
Copper	50 ppm
Nickel	4 ppm
Antimony	30 ppm
Cobalt	4 ppm
Barium	1000 ppm
Selenium	100 ppm

18° - Chromium VI

According to the entry 47 of the Annex XVII of REACH:

Leather case: Regulation (UE) n°301/2014 of the 25th of March 2014 amends the Annex XVII concerning chromium VI by adding restrictions on leather articles or articles containing leather parts that may come into contact with the skin.

ETAM Group limits the chromium VI content in its products to **3ppm**.
Testing method: **ISO 17075**, after ageing of **leather: ISO 10195 A2**.

19° - Lead

According to the entry 63 of the Annex XVII of REACH:

Lead may be present in items intended for the general public (e.g., jewellery, hair accessories) or any accessible part of which can be put in the mouth by children under normal or reasonably predictable conditions of use.

[Phthalato(2-)]dioxotrilead (dibasic lead phthalate) (CAS 69011-06-9) has to be tested with lead.

The lead content is limited to **500ppm**.
Testing methods: **EN 16711-1 for textile** and **ISO 17072-2 for leather**

20° - Cadmium

According to the entry 23 of the Annex XVII of REACH:

Cadmium is generally used in stabilizers or in pigments for plastics or coatings.
The cadmium content in plastics (accessories, plastic coating, and plastisol print) must be **less than 100ppm** (i.e. 0.01% of Cd mass/plastic mass).
To determine this content in plastics, use the standard **EN 1122-B**.

The cadmium content of metal accessories (belt buckles, buttons, snap fasteners ...), metal parts of accessories as jewels (e.g. cufflinks, brooches, earrings, and barrettes), eyeglass frames and all of accessories must be less than 100 ppm by weight of metal.
To determine this content in metal, use solvent extraction and analysis by ICP-OES.

21° - Nickel

According to the entry 27 of the Annex XVII of REACH:

Metal articles (buttons, rivets, zip fasteners, chains, jewellery, earrings, eyeglass frames (NF EN 16128: 2015), hair clips and all accessories directly in contact with the skin) must not contain nickel.

Owing to the detection limits of the machines used for this test, the maximum concentrations accepted by the ETAM Group are as follows:

- ✓ Uncoated metal articles: **0.5 micrograms / cm² / week**. To determine the released nickel level, use standard: **EN 1811 + A1: 2015**.
- ✓ Coated metal articles: **0.5 micrograms / cm² / week**. To determine the released nickel level, use standards: **EN 12472: 2005, EN 1811 + A1: 2015**.
- ✓ Metal articles piercing the skin: **0.2 micrograms / cm² / week**. To determine the released nickel level, use standard: **EN 1811 + A1: 2015**.

22° - AP/APE/APEO alkylphenols and NP/NPE/NPEO nonylphenols

According to General Product Safety Directive (Directive 2001/95) and the Annex XIV from 4 Jan. 2021 and the entry 46bis (3 Feb. 2021) of the Annex XVII of REACH:

NPEOs (nonylphenoethoxylate) and APEOs are still used as wetting agents, detergents, dispersants and emulsifiers in the textile industry, although substitutes exist and are already commonly used.

NPEOs are restricted in water-washable textile articles. Once released into the environment, they become a risk to aquatic organisms.

The progressive degradation of these NPEOs and APEOs leads to a return to the NP (nonylphenol) and OP (octylphenol) forms, which are endocrine disruptors.

Octylphenols, as 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated / (4-tert-Octylphenol ethoxylates), can cover well-defined substances and UVCB substances, polymers and homologues.

4-Nonylphenol, branched and linear, ethoxylated (NPEs) is one of the forms in which nonylphenol or NP can be found.

AP/APEO alkylphenol and NP/NPEO nonylphenol limit is set at **100 ppm**.

To determine the content of these substances, the testing method is **ISO 18254-1: solvent extraction with analysis by LC/MS**.

23° - Trichloroethylene

According to the SVHC candidate list of REACH and the Annex XIV of REACH:

Trichloroethylene may be used as degreasing agent for fabrics, as a stain remover for finished products, as a cleaning agent or as a solvent.

We prohibit the use of this substance.

24° - pH of the aqueous extract

According to General Product Safety Directive (Directive 2001/95):

Testing of the pH of aqueous extract identifies the residual presence of chemical compounds on textile items which are subject to alter the pH.

To limit the risk of irritation as far as possible, we request a pH level between:

- **4 and 7.5** for all textile products and the interior parts of shoes even in leather, in contact with the skin. Use the standard **ISO 3071**.
- **3.5 and 7,5** for leather products without contact with the skin. Use the standard **ISO 4045**.

25° - Pesticides

According to Directive Générale sur la sécurité des produits (Directive 2001/95) :

The ETAM Group authorized limit is: **1 ppm (1ppm = 1 milligram per kilo)**.

To determine the pesticide content, it's an **in-house method: analysis by GC-MS, GC-ECD, GC-NPD & HPLC-DAD-MSD**.

Comment: European Commission decision **2009/567/EC** establishing the criteria **for awarding of the ecological label** limits the pesticide level to **0.05 ppm** (for cotton fibers and keratin fibers). In this case, this 0.05 ppm limit is to be complied with only if you are asked to provide such labelling on our products.

Pesticides are listed below:

CAS no.	Substances
97-75-7	2,4-D
93-76-5	2,4,5-T
135410-20-7, 160430-64-8	Acetamiprid
116-06-3	Aldicarb
309-00-2	Aldrine
86-50-0	Azinphos Methyl
2642-71-9	Azinphos Ethyl
4824-87-6	Bromophos-ethyl
2425-06-1	Captafol
63-25-2	Carbaryl
57-74-9	Chlordane
6164-98-3	Chlordimeform
470-90-6	Chlorfenvinphos
210880-92-5	Clothianidin
56-72-4	Coumaphos
68359-37-5	Cyfluthrin
91465-08-6	Cyhalothrin
52315-07-8	Cypermethrin
78-48-8	DEF
52918-63-5	Delatamethrin
53-19-0	2,4'-DDD
72-54-8	4,4'-DDD
3424-82-6	2,4'-DDE
72-55-9	4,4'-DDE
789-02-6	2,4'-DDT
50-29-3	4,4'-DDT
333-41-5	Diazinon

CAS no.	Substances
120-36-5	Dichlorprop
141-66-2	Dicrotophos
60-57-1	Dieldrine
60-51-5	Dimethoate
88-85-7 et al	Dinoseb, sels et acéte
165252-70-0	Dinotefuran
959-98-8	Endosulfan Alpha
33213-65-9	Endosulfan Beta
72-20-8	Endrine
66230-04-4	Esfenvalerate
51630-58-1	Fenvalerate
76-44-8	Heptachlor
1024-57-3	Heptachlorepoxyde
118-74-1	Hexachlorobenzene
319-84-6	Hexachlorcyclohexane -alpha
319-85-7	Hexachlorcyclohexane -beta
58-89-9	Hexachlorcyclohexane - gamma
105827-78-9, 138261-41-3	Imidacloprid
465-73-6	Isodrine
4234-79-1	Kelevane
143-50-0	Kepone
58-89-9	Lindane (g – HCH)
121-75-5	Malathion

CAS no.	Substances
94-74-6	MCPA
94-81-5	MCPB
93-65-2	Mecoprop
10265-92-6	Metamidophos
72-43-5	Methoxychlor
2385-85-5	Mirex
6923-22-4	Monocrotophos
150824-47-8	Nitenpyram
56-38-2	Parathion
298-00-0	Parathion-methyl
72-56-0	Perthane
7786-34-7	Phosdrin/Mevinphos
31218-83-4	Propethamphos
41198-08-7	Profenophos
13593-03-8	Quinalphos
8001-50-1	Strobane
297-78-9	Telodrine
111988-49-9	Thiacloprid
153719-23-4	Thiamethoxam
80001-35-2	Toxaphène (Camphechlor)
1582-09-08	Trifluraline