

PRODUCT HEALTH AND SAFETY STANDARD

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INTRODUCTION

SASMAT RETAIL S.L. (hereinafter, SASMAT RETAIL), on representation of its firm PDPAOLA, is committed to providing customers with jewellery articles embodying the highest standards for human health and safety.

The SASMAT RETAIL product health and safety standard (hereinafter, standard) has been developed in conformity with product health and safety laws in the markets where the company sells its products.

The main objective of this standard is to establish the requirements for chemical substances and safety parameters regulated in jewellery articles, to guarantee a high protection of the human health and safety of consumers. It includes requirements related to the characteristics of the product to ensure that it does not present risks to the safety of users, especially children.

SCOPE OF APPLICATION

This standard compulsorily applies to jewellery articles intended for any user regardless of their age. Jewellery articles include earrings, rings, necklaces, bracelets and piercings, among others.

Any SASMAT RETAIL product supplier must comply with the requirements of this standard. In addition, the compliance with this standard does not exempt suppliers from complying with any other regulation applicable to jewellery articles.

COMPLIANCE OF THE STANDARD

Suppliers are required to implement a consistent and competent approach to the management of the restricted substances and parameters. Similarly, suppliers are solely responsible for effective application and compliance of the standard for products supplied to SASMAT RETAIL.

SASMAT RETAIL can verify the compliance with the standard of any article provided by its suppliers, at any stage of production or distribution (e.g., through internal control programs of the company). For this purpose, suppliers shall provide an adequate access to any documentation required to conduct a conformity control of the provided jewellery articles, such as, test reports or safety data sheets (SDS) for all materials, substances and preparations used in the production of a SASMAT RETAIL order.

In case of differences between the test reports provided by the supplier and those carried out by SASMAT RETAIL, the results carried out by SASMAT RETAIL shall prevail.

In the event of a non-compliance with the standard, we reserve the right to:

- Reject any order or product.
- Return any order or product delivered.
- Cancel any scheduled order.
- Hold the supplier responsible for any damage caused.

HEALTH AND SAFETY REQUIREMENTS

1 RESTRICTED SUBSTANCES AND PARAMETERS LIST

The restricted substances and parameters list (hereinafter, RSPL) includes those chemicals and parameters legally restricted or prohibited in the markets where SASMAT RETAIL sells its products.

The limits for the content of chemical substances in jewellery articles have been established considering the strictest limit, among those present in the legislation of the different trading territories where SASMAT RETAIL operates.

For each substance included in the RSPL, the following information is provided:

- CAS number¹.
- Common name of the substance.
- The restriction or maximum concentration in the material/components of the final product.
- Age of the user.
- Recommended test method².

Additionally, each substance section includes a brief description about where these substances might be found.

For each safety parameter, the requirements and corresponding test methods (where applicable) are provided.

The requirements of this RSPL are mandatory for any supplier in relation to the products supplied to SASMAT RETAIL.

1.1 RESTRICTED SUBSTANCES LIST

METALS AND ITS COMPOUNDS

This group of substances are those metals and metalloids commonly known as heavy metals. Even if there is not a clear definition of heavy metals, usually they are defined as elements with a high density, molecular weight, atomic number, and toxic at low concentrations. Among heavy metals are included, for example, Cadmium, Lead, Mercury, Chromium, Nickel, Antimony, Arsenic, Barium and Selenium.

- Cadmium and Lead may appear in:
 - Metallic parts, alloys and metal coatings (as a component or impurity), including welding material.
 - Plastic materials and coatings due to their compounds may be used as stabilizers.
 - Paints, prints, glass, ceramics, or synthetic stones, where lead or cadmium compounds could be employed as pigments.
- Mercury and its compounds may be found in metal components, as an impurity, and in natural materials and paints due to the possible use of mercury compounds as preservatives.

¹ Chemical Abstracts Service number, an identification number assigned by Chemical Abstracts Service (a division of the American Chemical Society) to every chemical substance included in its database. Also referred to as CAS Registry Number or CAS-RN.

² These test methods are proposed as reference to be employed to check compliance with health and safety requirements.

- Chromium and its compounds can be present in metal coatings and metal alloys. Other materials where they can also be present are natural materials (where chromium derived biocides can be used), and paints and plastics where chromium derived pigments can be employed.
- Nickel is widely used as strengthening, brightening and antioxidizing agent and, therefore, can be found mainly in metallic parts.
- Antimony, Arsenic, Barium and Selenium and derivative compounds can be found in metal parts and materials in which pigments containing these elements can be employed (e.g., paints, plastics). Antimony compounds can be also employed as polymerization catalysts (e.g., polyester) and Arsenic compounds as preservatives of natural materials (e.g., wood).

CAS N°	Substances	Users	Material/Limits	Test methods
Various	Cadmium and its compounds	All ages	Total content ³ - Any material: No detection ⁴	Metal: CPSC-CH-E1001-08.3 Paints and Surface coatings: CPSC-CH-E1003-09.1 Other materials: CPSC-CH-E1002-08.3
		All ages	Extractable content ³ - Any material: No detection ⁴	Metal: CPSC-CH-E1004-11 Other materials: EN 71-3 2020
Various	Lead and its compounds	≤ 14 years	Total content ³ - Any material ⁵ : 90 ppm	Metal: CPSC-CH-E1001-08.3 Paints and Surface coatings: CPSC-CH-E1003-09.1 Other materials: CPSC-CH-E1002-08.3
		> 14 years	Total content ³ - Paints and surface coatings: 90 ppm Other materials: ⁵ 100 ppm	
		≤ 14 years	Extractable content ³ - Any material: 90 ppm	EN 71-3 2020
Various	Mercury and its compounds	All ages	Total content ³ - Any material: No detection	EN 16711-1:2016
			Extractable content ³ - Any material: No detection	EN 71-3 2020
Various	Chromium and its compounds	≤ 14 years	Extractable content ³ - Any material: 60 ppm	EN 16711-1:2016
-	Chromium (VI)	≤ 14 years	Extractable content ³ - Metal, rubber, plastic with metal coating: No detection	CNS 15331 Annex B
		> 14 years	Metal: 1000 ppm	GB/T 28019

3 The difference between total and extractable metal content depends on how the sample is analyzed. Thus, a total metal analysis is carried out by digestion of the sample with a strong acid or a mixture of acids (the sample is completely solved), followed by the determination of the content of inorganic ions. In an extractable metal analysis, the sample is treated with an aqueous solution (simulating sweat or saliva), in which the sample is not completely solved, followed by the determination of the content of inorganic ions.

4 For the avoidance of doubt, solder must be cadmium free.

5 In European Union and United Kingdom, the following materials are exempt from this restriction: crystal glass (as defined in Annex I of Council Directive 69/493/EEC), internal components of watch timepieces inaccessible to consumers, non-synthetic or reconstructed precious and semiprecious stones (CN code 7103 as established by Regulation (EEC) No 2658/87), unless they have been treated with Lead or its compounds or mixtures containing these substances and enamels. In USA and Israel, the following materials are exempt from this restriction, if they have neither been treated nor adulterated with the addition of materials that could result in the addition of Lead into the final article: precious gemstones (diamond, ruby, sapphire, emerald), semiprecious gemstones and other minerals (excluding any mineral that is based on Lead or Lead compounds including, but not limited to, the following: aragonite, bayldonite, boleite, cerussite, crocoite, galena, ekanite, linarite, mimetite, phosgenite, vanadinite, and wulfenite), natural or cultured pearls, wood, paper, printing inks, textiles (excluding after-treatment applications), other plant-derived and animal-derived materials and metals, such as any stainless steel or surgical steel, Gold (at least 10 karat), Silver (at least 925/1000), Platinum, Palladium, Rhodium, Osmium, Iridium, Ruthenium and Titanium.

CAS N°	Substances	Users	Material/Limits	Test methods
Various	Nickel and its compounds	All ages	Nickel Release ⁶ - Metal ⁷ : No detection in any post assemblies which are inserted into pierced ears and other pierced parts of the human body and 0.5 µg/cm ² /week for other articles intended to come into direct and prolonged contact with the skin.	EN 1811:2011+A1 2015 and EN 12472:202
Various	Arsenic and its compounds	≤ 14 years	Total content ³ - Any material: 25 ppm	EN 16711-1:2016
		> 14 years	Total content ³ - Metal: 1000 ppm	
Various	Antimony and its compounds	≤ 14 years	Extractable content ³ - Any material: 25 ppm	EN 71-3 2020
		≤ 14 years	Total content ³ - Any material: 60 ppm	EN 16711-1:2016
Various	Barium and its compounds	≤ 14 years	Extractable content ³ - Any material: 60 ppm	EN 71-3 2020
		≤ 14 years	Extractable content ³ - Any material: 1000 ppm	EN 71-3 2020
Various	Selenium and its compounds	≤ 14 years	Extractable content ³ - Any material: 500 ppm	EN 71-3 2020

PHTHALATES

Phthalates are a family of synthetic compounds mainly used as plasticizers, that is, they are added to polymers to increase the flexibility and durability of plastics (included adhesives and resins). They can be released from the plastic material because they are blended with the polymer without chemical bonding between them. Phthalates can be also used as demolding agent for plastics.

CAS N°	Substances	Users	Material/Limits	Test methods
28553-12-0	Di-isononyl phthalate (DINP)	≤ 14 years	Polymeric materials (e.g., adhesives, plastics, etc.): 1000 ppm for the sum of DEHP, DBP, BBP, DIBP, DINP, DIDP and DNOP	CPSC-CH-C1001-09.4
26761-40-0	Di-isodecyl phthalate (DIDP)			
117-84-0	Di-n-octyl phthalate (DNOP)			
117-81-7	Bis(2-ethylhexyl) phthalate (DEHP)	> 14 years	Polymeric materials (e.g., adhesives, plastics, etc.): 1000 ppm for the sum of DEHP, DBP, BBP y DIBP	
84-74-2	Dibutyl phthalate (DBP)			
85-68-7	Benzyl butyl phthalate (BBP)			
84-69-5	Diisobutyl phthalate (DIBP)			

SHORT CHAIN CHLORINATED PARAFFINS (SCCPs)

Short chain chlorinated paraffins (SCCPs) are a complex mixture of substances, primarily used as lubricants and coolants in metal cutting and metal forming operations. Other SCCPs uses are as a flame retardant and plasticizer in the following materials: plastics, rubber, adhesives, sealants, paints and lacquers, coatings.

CAS N°	Substances	Users	Material/Limits	Test methods
85535-84-8	Short Chain Chlorinated Paraffins	All ages	Any material: No detection	ISO 18219 2015

⁶ Release Nickel analysis involves treating of a metallic surface (sample), with an acid artificial sweat solution during 7 days, followed by determination of the concentration of nickel ions by ICP-MS analysis. Previously to this treatment, the sample is subjected to a rapid test to see if it presents Nickel in the outer surface coating, called Ni spot. If there is no Nickel in the outer coating, the sample is first subjected to a corrosion process and then to an abrasion process that simulates wear.

⁷ In Israel and Rhode Island, precious metals such as: Gold (at least 9 karat), sterling Silver (at least 925/1000), Platinum, Palladium, Rhodium, Osmium, Iridium, Ruthenium and Titanium; and stainless or surgical steel grades 304, 316 and 430, are exempted to comply with these requirements.

ORGANOTIN COMPOUNDS

Organotin compounds or organostannic compounds are chemical substances constituted of tin and organic substituents. They are often used as thermal stabilizers for plastics and catalysts in polymer synthesis (such as, PVC, polyurethane, rubber, adhesives, prints, etc.). They can also be employed as preservatives of natural materials.

CAS N°	Substances	Users	Material/Limits	Test methods
Various	Dibutyltin compounds (DBT)	All ages	Any material: 1000 ppm	
Various	Tributyltin compounds (TBT)	All ages	Any material: No detection	ISO 22744-1:2020 and ISO 22744-2:2020
Various	Other trisubstituted organotin compounds	All ages	Any material 1000 ppm	

POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)

Polycyclic Aromatic Hydrocarbons (PAHs) are a family of compounds composed of fused aromatic carbons rings. PAHs are natural compounds in many fossil fuels and a common residue from incomplete combustion of such fuels. They are not intentionally added but they can be present in polymeric parts of products because of:

- PAHs contaminated softening oils in rubber and flexible (soft) plastics.
- PAHs contaminated carbon black as a black pigment in rubber, plastics, and paints.

CAS N°	Substances	Users	Material/Limits	Test methods
50-32-8	Benzo[a]pyrene			
192-97-2	Benzo[e]pyrene			
56-55-3	Benzo[a]anthracene			
218-01-9	Chrysene			
205-99-2	Benzo[b]fluoranthene			
205-82-3	Benzo[j]fluoranthene			
207-08-9	Benzo[k]fluoranthene			
53-70-3	Dibenzo[a,h]anthracene			
91-20-3	Naphthalene	All ages	Polymeric materials (e.g., adhesives, plastics, etc.): 1 ppm for Benzo[a]pyrene, benzo[e]pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene (for each one of them)	
208-96-8	Acenaphthylene			
83-32-9	Acenaphthene			
86-73-7	Fluorene			
85-01-8	Phenanthrene			
120-12-7	Anthracene			
206-44-0	Fluoranthene			
129-00-0	Pyrene			
191-24-2	Benzo[g,h,i]perylene			
193-39-5	Indeno[1,2,3-cd]pyrene			

1.2 RESTRICTED SAFETY PARAMETERS LIST

Parameters	Requirements	Test methods
Magnets	The use of magnets in children's jewellery is prohibited	-
Sharp points and edges	Prohibited in children's jewellery <8 years ⁸	16 CFR 1500.48 and 16 CFR 1500.49
Breakaway Features and Releases	Children's jewellery intended to be attached around the neck shall release, either by designed breakaway feature, attachment design or physical properties of the material, when subjected to 15 lb of tension in accordance with the breakaway tension test. No hazardous sharp points or edges shall be observed during the breakaway tension test if the children's jewellery < 8 years ⁹	Section 13.1 of ASTM F2923-14

2 OTHER REQUIREMENTS

In addition to the restrictions set out in the RSPL of this standard, another requirement is the following:

Body piercing jewellery shall be made of one or more of the following materials:

- a. Surgical implant stainless steel.
- b. Surgical implant grade of titanium.
- c. Niobium (Nb).
- d. Solid 14 karat or higher white or yellow nickel-free gold.
- e. Solid platinum.
- f. A dense low-porosity plastic, including, but not limited to, Tygon or polytetrafluoroethylene (PTFE), if the plastic contains no intentionally added Lead.

⁸ If the point has a diameter greater than 1.02 mm shall not be considered a sharp point, and if the point has a diameter less than 1.02 mm, the length of the point shall not exceed 0.5 mm. Any functional sharp point on children's jewelry is exempt.

⁹ Looped children's jewelry which by reason of construction do not fit around the test fixture, having a circumference less than 9.4 in. shall not be subject to the requirements.