AQC ASSOCIATION POUR L'ASSURANCE QUALITÉ DES FABRICANTS DE BRACELETS CUIR	**DOC nb**	LIS007_05
	Replace	LIS007_04

RESTRICTED SUBSTANCES LIST FOR METALLIC PARTS

Application date: 27Mar23		Page 1/4
Written by	Quality review (signature/date) Mar 17, 2023	Process owner (signature/date) Mar 17, 2023
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Change log

Version	Date	Modification
02	12Feb18	Addition of the table for AQC Allergen Reduction program at the end of the document Addition of Cobalt release (w/o limit - for information only)
03	18Dec20	Addition of : • Scope of the document • Regulatory considerations • General requirements for laboratory testing Precision of EDX expected data Review of Lead limit (Prop65) from 300 mg/kg to 100 mg/kg Review of method for heavy metals and Chromium (VI)
04	14Jan22	Annual revision without modification
05	27Mar23	Decision Technical WG 16Mar23 – action CQI-23-078 Annual revision without modification of requirements for chemicals and limits in the list Suppression of allergen list at the end of the document Add of pin buckle in the scope of the list

Associated document (level 1)

Document	Title
MAQ016	Chemical Compliance Process

Associated document (level 2)

Document	Title
-	-

Associated document (level 3)*

Document	Title
-	-

* Internal documents – not disclosed.

Scope of the document

This document defines the list of restricted dangerous chemical substances and testing requirements for metallic inserts, spring bars, pin buckle, and emblems in the context of leather bracelet compliance as specified by AQC.

For the definition of the limits present in this Restricted Substances list (RSL), AQC takes into consideration all the current international regulations for dangerous substances available and select the strictest limit. The list of chemicals present in this document has been selected on the basis of a risk-based approach completed by AQC experience and knowledge.

International regulations mentioned in this document are:

Abbreviation	Regulation	Country	Comment
GB 28480	Adornment -- Provision for limit of baneful elements	China	-
Proposition 65	Safe Drinking Water and Toxic Enforcement Act	USA (California)	-
REACH XVII	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)	EU	Annex XVII Substances subject to restriction
RoHS II	Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment	EU	equivalent to the requirement of annexe 2.18 of ORRChim ordinance (Switzerland)

Specific AQC consideration

In the column for regulation, "AQC" stands for extra-legal requirement set by AQC in a pro-active way:

- "AQC" alone is applied for substances without known regulation
  For some substances, AQC performs testing without limit (for information) or with a limit concentration

- (AQC) after a regulation indicate that the scope has been enlarged by AQC or that the limit applied by AQC is lower than requested by the more stringent regulation.

AQC limit for REACH / OChim SVHCs

Article 33(1) of REACH requires that a supplier of articles containing a SVHC included in the Candidate List for authorization in a concentration above 0.1% (w/w) has to provide relevant safety information to the recipients of these articles (Watch Brands). Upon request of a consumer, Watch Brands have to provide relevant safety information about the SVHC to this consumer (Article 33(2) of REACH).
This requirement is also present in Swiss ordinance OChim, article 71.

There is no regulatory requirement to limit SVHC content in articles to 1'000 mg/kg. Nevertheless, AQC Bracelet manufacturers limit all SVHC listed substances to 1'000 mg/kg in bracelets and components.

AQC limit for Proposition 65

For substances listed in the Proposition 65 California, AQC limits take into account the limit in articles present in the case law of Proposition 65 and more precisely the limits indicated in the reformulation injunctions of settlements and judgements.

AQC considers in case law: leather articles and related articles to the watch bracelet but also any other article with a related exposure scenario (skin contact).

For substances without indication of a limit in articles, AQC performs testing of a risk-based selection of substances potentially used for leather production and keeps available for Watch Brands all the data as a support for labelling decision.

General requirements for laboratory testing

- Sample picture

Picture of metallic inserts or spring bars received by the laboratory have to be taken **without** plastic bag.

- Sample preparation

Samples are prepared as indicated in the methods requested by AQC.
AQC does not have further specific requirements.

TITANIUM

Substance family	Substance Name	Abbr.	CAS Number	AQC limit	Regulation	AQC required Method
ID	Elements composition	-	several	for information Indication of Titanium grade(s)	AQC	EDX
Heavy Metals	Cadmium	Cd	7440-43-9	100 mg/kg	RoHS II	EN 62321-5
	Lead	Pb	7439-92-1	100 mg/kg	Prop65 (2012-00629)	EPA 3050B
	Mercury	Hg	7439-97-6	1000 mg/kg	RoHS II	EN 62321-4
	Arsenic	As	7440-38-2	1000 mg/kg	GB 28480	EN 62321-5 adapted
Oxidized metal	Chromium (VI)	Cr(VI)	18540-29-9	1000 mg/kg	RoHS II	EN 62321-7

Only if Nickel detected by EDX

Allergenic Metal release	Nickel	Ni	7440-02-0	0.88 µg/cm²/week	REACH XVII entry 27	EN ISO 1811+A1
	Cobalt	Co	7440-48-4	for information (in µg/cm²/week)	AQC	EN ISO 1811+A1 adapted

STAINLESS STEEL

Substance family	Substance Name	Abbr.	CAS Number	AQC limit	Regulation	AQC required Method
ID [1]	Elements composition	-	-	for information Indication of stainless-steel type(s)/family [2]	EN 10027 AISI (US)	EDX
Heavy Metals	Cadmium	Cd	7440-43-9	100 mg/kg	RoHS II	EN 62321-5
	Lead	Pb	7439-92-1	100 mg/kg	Prop65 (2012-00629)	EPA 3050B
	Mercury	Hg	7439-97-6	1000 mg/kg	RoHS II	EN 62321-4
	Arsenic	As	7440-38-2	1000 mg/kg	GB 28480	EN 62321-5 adapted
Oxidized metal	Chromium (VI)	Cr(VI)	18540-29-9	1000 mg/kg	RoHS II	EN 62321-7
Allergenic Metal release	Nickel	Ni	7440-02-0	0.88 µg/cm²/week	REACH XVII entry 27	EN ISO 1811+A1
	Cobalt	Co	7440-48-4	for information (in µg/cm²/week)	AQC	EN ISO 1811+A1 adapted

[1] For spring bars, EDX is performed on the 4 parts (tube, mobile tip, lug, spring) ; For pin buckle, EDX is performed on the pin ("*ardillon*") and the buckle.
[2] Upon specific request, the precise type of stainless steel could be determined by the performance of Sulfur and Carbon titration by ISO 15350.

MASSIVE BRASS, PLATED-BRASS

Substance family	Substance Name	Abbr.	CAS Number	AQC limit	Regulation	AQC required Method
ID	Elements composition	-	-	for information Check of Copper/zinc alloy	AQC	EDX
Heavy Metals	Cadmium	Cd	7440-43-9	100 mg/kg	RoHS II	EN 62321-5
	Lead	Pb	7439-92-1	100 mg/kg	Prop65 (2012-00629)	EPA 3050B
	Mercury	Hg	7439-97-6	1000 mg/kg	RoHS II	EN 62321-4
	Arsenic	As	7440-38-2	1000 mg/kg	GB 28480	EN 62321-5 adapted
Oxidized metal	Chromium (VI)	Cr(VI)	18540-29-9	1000 mg/kg	RoHS II	EN 62321-7
Allergenic Metal release	Nickel	Ni	7440-02-0	0.88 µg/cm²/week	REACH XVII entry 27	EN ISO 1811+A1
	Cobalt	Co	7440-48-4	for information (in µg/cm²/week)	AQC	EN ISO 1811+A1 adapted

LIS007_05 AQC RSL for metallic parts

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