NICKEL IN JEWELLERY: NEW RULES FROM 1ST APRIL 2013

The use of nickel in the sector of precious metal objects is regulated at European level by the European Regulation 1907/2006 – REACH – and subsequent additions and amendments, which establishes the following correct nickel release values:

- within the limit of 0.5 micrograms/cm²/week - for products that come into contact with the skin with prolonged use;
- within the limit of 0.2 micrograms/cm²/week - for products inserted into pierced parts of the body.

This regulation therefore covers not only piercing and earring pins, but also all jewellery that comes into contact with the skin.

The preciousness or otherwise of the metal makes no difference; the regulation concerns all alloys containing nickel (especially alloys used to produce white gold jewellery and parts).

Since it is a European Regulation, compliance with the REACH is obligatory for all operators of the 27 countries of the European Union.

From 1st April 2013 the EN 1811:2011 standard (which replaces the old EN 1811:2008) came into force throughout the community territory, introducing a new system of nickel release measurement in jewellery. The change does not affect the limit values for nickel release but the test method used to measure it.

The standard concerns all subjects involved in the manufacture, import and sale of jewellery, precious and non-precious, in the 27 countries of the European Union.

Production stages requiring attention

You are advised to pay particular attention to the following stages of the production process:

- purchase and use of alloys and pre-alloys;
- surface coating treatments, both galvanic and non-galvanic;
- assembly of externally produced components that come into contact with the skin.

The REACH establishes that the above thresholds must not be exceeded also during production.

Possible production solutions

- Where possible use nickel-free or low nickel release alloys.
- At the moment, the best-known solution, although it is costly, is to replace the nickel with palladium.
- Another solution is rhodium plating or equivalent galvanic treatment to prevent the release of nickel for at least two years from purchase.

Lead and Cadmium

The European Regulation 1907/2006 – REACH also establishes:

- Cadmium is permitted on condition that it is less than 0.01% of the weight of the jewellery item;
- Lead is permitted on condition that it is less than 0.05% of the weight of the jewellery item.

Sanctions and Liabilities

Fines and penalties are established for offenders in each country.

Apart from sanctions, the problem of nickel can also give rise to civil legal action by the end user in the event of the onset of allergies that can be traced back to an item of jewellery containing a nickel level exceeding the established thresholds.