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AROMATIC AMINES IN TATTOO INKS: SURVEILLANCE ACTIVITIES IN ITALY

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In the last five years Italian authorities have promoted a program of chemical evaluation for the safety of tattoos and permanent make-up.

Local public health authorities and agencies for environmental protection have defined a protocol for the inspections of tattoo laboratories including sampling criteria of products used for tattoos.

The analytical results of aromatic amines determination are included for about 200 products of various brands of tattoo and make-up inks.

The list of amines detected is referred to the Resolution ResAP(2008), and the analytical method is "UNI EN ISO 17234:2010", applied for leather products and compared with the method described in Resolution ResAP (2008).

In a significant portion of samples analyzed aromatic amines were determined; most of these samples are related to the products of red and yellow colors.

A variability of results has been observed depending from the lot of production, with several positive samples not confirmed on different lots.

Retesting of products from the same batches showed also evidence of false labeling, with important difference of aromatic amines concentration in the samples.

The Italian Ministry of Health aims to promote an in-depth study based on the following priorities:

- extension of the statistical basis of samples
- increase in the range of analytical parameters
- update the database system products
- active involvement of producers, distributors and tattoo artists in the process of products improvement for prevention and health.