

16

THE DANISH EPA RISK ASSESSMENT OF TATTOO INKS

Dorte Lerche¹

¹*Danish Ministry of the Environment; (Copenhagen, Denmark)*

The Danish EPA is in favour of a stand-alone regulation on tattoo inks in the EU, where the legislation is based on the principle of risk minimization.

A major concern is the identified content of carcinogenic degradation products from azo-colors (including aniline), PAHs (impurities) and lead in tattoo inks. In order to reflect the current level of safety for consumers in other areas such as PAHs in consumer goods and azo-colours in textiles, these substances should be restricted.

A second concern is to restrict the use of CMR cat 1 constituents in tattoo inks in the same manner as has been done in Annex XVII with other consumer products.

The development of a risk assessment as normally produced in the relation to chemicals under REACH is not considered relevant as the risk assessment for tattoo inks is complicated. A major constraint is the exposure estimation. It is evident that at least the pigments in the inks are absorbed, since the lymph nodes are colored with the same colors as adjacent tattoos. However, the assessment of the exposure is rather different from the 'normal' exposure routes on which risk assessments are based since the skin barrier is penetrated and the inks are placed under the skin (long-term exposure through initially damaged skin). Thus, the models normally applied in risk assessments would not be applicable in the case of tattoo inks.

However, in order to establish limit values to enable regulation calculations have been performed and will be presented at the conference.