QRA Review 2014

- Toxicological risk assessment is normally based on the extrapolation of an experimentally derived threshold to an acceptable use level
- Skin sensitisation QRA follows this approach
 - NESIL is the experimental threshold
 - SAFs translate this into the real world

 Proof that any risk assessment functions properly requires clinical evidence in the context of appropriate risk management

Skin sensitisation risk assessment

Clinical data on elicitation

Acceptable exposure level minimising elicitation

"NEW" chemical

Clinical evidenc e

Sensitisatio n data NESIL

"Marketing"

Acceptable exposure levels minimising induction



QRA

Overview

Reconsideration of the underlying science

Impact of the above on QRA/SAFs

Intensive discussion/debate in mid-March

◆ The starting point of the QRA is the NESIL, which is defined as the threshold known not to induce skin sensitization, considering all available hazard data in a weight of evidence approach, under the specific exposure conditions of a standard protocol HRIPT.

- Considerations related to Humans:
 - The variation in individual human susceptibility to skin sensitization is substantial. The biological basis of this variability is largely unknown, with ethnicity, gender, age (including infants), genetics each making only a minor contribution.
 - Regarding skin diseases / conditions:
 - Atopic dermatitis, psoriasis and dry skin have probably no impact on skin sensitization.
 - Irritant dermatitis is known to promote skin sensitization.
 - The inter-individual variability not accommodated in the NESIL is reflected by a SAF of 10.

- Considerations related to products:
 - The impact of product use factors such as degree of occlusion, frequency / duration of product use and the product matrix itself are reflected in SAFs that range between 0.3 and 3.
 - The role of skin condition / site is determined by a stepwise consideration of pre-existing inflammation, irritation by product, and penetration / permeation of product and is reflected in SAFs each between 1 and 3.
 - The impact of use of the product over extended periods of time is reflected in a SAF of 2

In conclusion, the assumptions for the SAFs underpinning QRA 1.0 have been reviewed: QRA 2.0 represents a more detailed and transparent assessment with regard to aggregate exposure, skin condition, product type and site of application.

Now we must evaluate whether that conclusion withstands the scrutiny of practical application.

We should all focus on the *outcome* of QRA2.0 calculations, not on comparing QRA1

QRA2.0

Un Produit Ainsi Solide Qu'il Est Nouvateur