

## Breakout Group Report What are the main knowledge gaps in the risk assessment of pre- and prohaptens and how could they be addressed?

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## **Participants**



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Risk assessment of pre- and prohaptens Knowledge gaps and how to address them?



- Simplified the question is which materials are suspicious to be pre- / prohaptens, to which extent they transform and what the actual consumer exposure is
- Focus on prehaptens because prohapten transformation is mainly addressed in test systems in use – but will turn into a bigger problem in the future with less accessibility to in-vivo data
- For prehaptens, forming in raw materials and consumer products, the knowledge gaps are regarded much more relevant
- A knowledge gap is that for fragrances aged in stability tests, the qualifier is the smell, but there is no analytically supported knowledge on changes that may take place

## Risk assessment of pre- and prohaptens Knowledge gaps and how to address them?



- General issues are the knowledge gap regarding the potential impact of aggregate and even more cumulative exposure (reservoir effect) and to better understand potential combination effects
- Need to better understand the different potency of various hydroperoxides – is this an opportunity for QSAR modelling?
- Identifying novel prehaptens e.g. via TIMES SS
- Is there other relevant process besides oxidation and hydrolysis to look at? (e.g. reduction)
- Knowledge gap with regard to how patients react to isolated hydroperoxides compared to the oxidation mixture
- Which role does skin chemistry play?

Risk assessment of pre- and prohaptens Knowledge gaps and how to address them?



- Gap exists with regard to availability of analytical data on for hydroperoxides for non-hydroalcoholic products
- Need to gather clinical and chemical data in order to give guidance on the induction exposure sources or when they have occurred and gather data on product content
- The propensity of different types of consumer products to cause the conversion of specific prehaptens into haptens under normal conditions of use and duration (e.g. project 'Avoid', presentation C. Powell at first pre- and prohapten WS, June 2013)



## Thank you for your attention

