

OSHA Update to ICCVAM: the GHS and non-animal testing work group

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May 18, 2023

UN GHS Updates for expanding non-animal data for classification

Background

- In 2015 Netherlands and UK submitted a paper proposing the establishment of an informal working group on facilitating the use of data from non-animal test methods in GHS classification
- Proposed several activities in the program of work related to the use of non-animal data (*in silico*, *in vitro*, *in chemico*) for classifying substances and mixtures.

UN GHS Non-animal testing working group

- Following a step-wise approach by selecting a single hazard class to start with:
 - Skin corrosion/irritation (chapter 3.2) was completed in 2019 and published in revision 8
 - Eye corrosion/irritation (chapter 3.3) was completed in 2021 and was published in revision 9
 - Skin sensitization (chapter 3.4) substance criteria was completed in 2022 and will be published in revision 10
 - Skin sensitization (chapter 3.4) mixture criteria will be completed in the current biennium and will be published in revision 11

Skin Sensitization

Revise the skin sensitization chapter to better reflect the increased capability, availability and utility for classification of

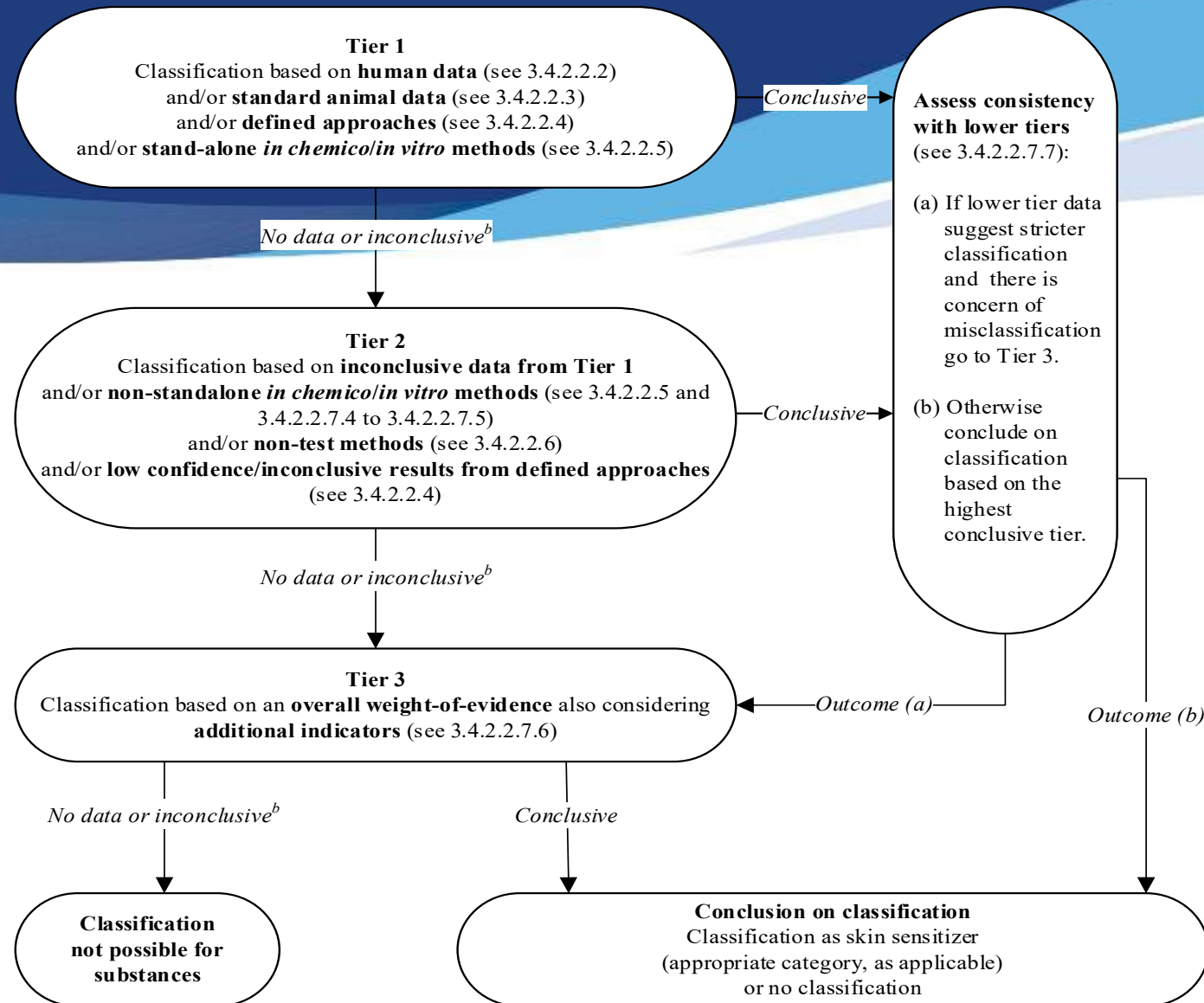
- *in chemico/in vitro* test methods
- defined approaches
- non-test methods

Tiered approach

Update includes:

- Tiered approach to classifying chemicals
 - Similar to approach used in skin and eye chapters
- Weight of evidence
 - Approach used within a tier as well as overall if no individual tier results in classification

Application of the tiered approach for skin sensitization



Classification based on non-test methods

- Computer models predicting structure activity relationships
 - Qualitative structure activity relationships (structural alerts, SAR)
 - Quantitative structure-activity relationships (QSAR)
- Read-across using analogue and category approaches

Defined Approaches

Defined approaches consist of a rule-based combination of data obtained from a predefined set of different information sources (e.g. *in chemico* methods, *in vitro* methods, physico-chemical properties, non-test methods).

Classification of Mixtures

- Currently working to update the mixture criteria for skin sensitization
- Should be complete this biennium (2023-2024)

Next Steps

- Update of respiratory sensitization
 - After OECD's state of the science evaluation
- Update of other GHS chapters

Thank you!

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