

Statistical Reference Figures Concerning Biocide-Concentrations in Leathers, and Reflection on Correlation Concerning Material Loads and Emission Findings Based on Test Chamber Evaluation

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Content

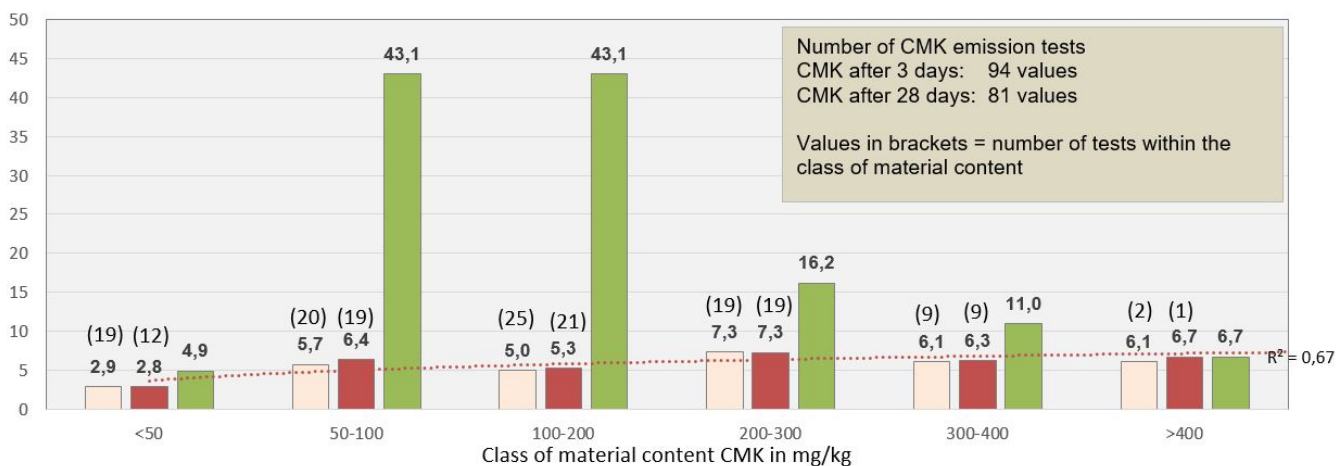
Both application and usage of biocides and preservatives are legally regulated within the European Union. In that sense, the active agents used in products have to undergo an approval procedure. This approach shall ensure that exclusively biocidal products are marketed which bear no negative effects for human beings in the scope of preventive consumer protection and the environment. In tradition, within the leather manufacturing process biocidal acting substances are used at different production steps regarding the chain of custody. Especially in the field of raw hides' transport and storage and in semi-finished tanning stages ("wet white" and "wet blue") characterized by high humidity content, biocidal agents are prophylactically utilized as constitutional ingredients to minimize the concentrations of adversely acting micro-organisms and for product valuable feature maintenance. For means of quality assessment and leather labelling different evaluation programs are available in the test market. On the one hand, these evaluation schemes focus on compliance with defined material based maximum concentrations in the leather matrix for selected and accepted biocides. On the other hand, quantifiable biocidal concentrations are limited with regard to their test chamber concentrations. In the scope of this work available datasets referring to a collective of examined leather types have been statistically evaluated, and a reflection on correlation between biocidal material and test chamber concentrations was made evaluating the current state of the art technology

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Emission of CMK depending on material content

Emission concentration
 $\mu\text{g}/\text{m}^3$



Average CMK $\mu\text{g}/\text{m}^3$ 3 days
 Average CMK $\mu\text{g}/\text{m}^3$ 28 days
 Maximum CMK $\mu\text{g}/\text{m}^3$ 28 days
 Log. (Average CMK $\mu\text{g}/\text{m}^3$ 28 days)

Emission of CMK depending on material content

Keyword

Biocides, emission, Leather