

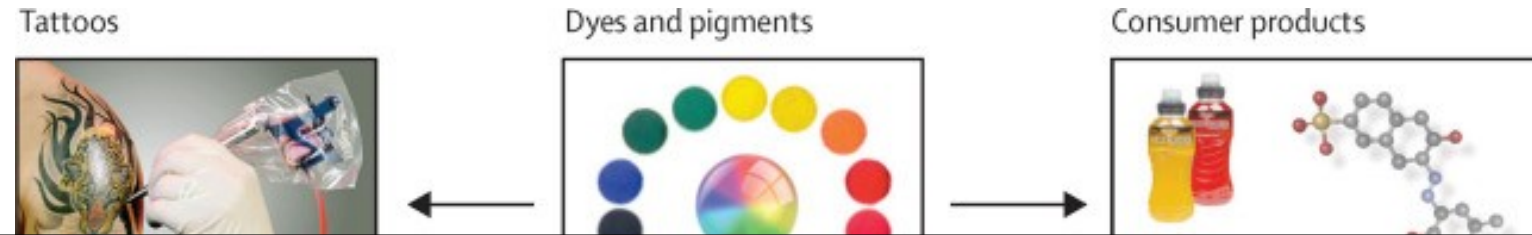


2nd International Conference on Tattoo Safety

Prof. Dr. Dr. Andreas Luch

What did we know then?

BfR-Symposium:



A medical-toxicological view of tattooing

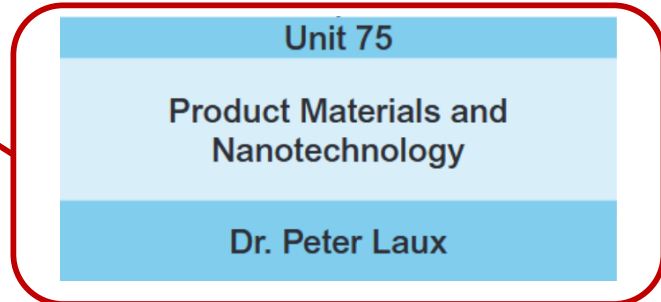
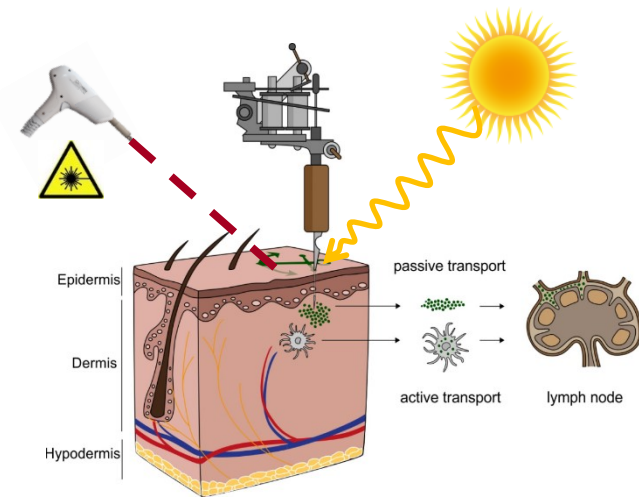
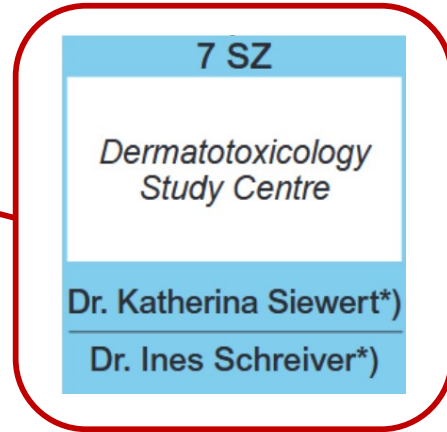
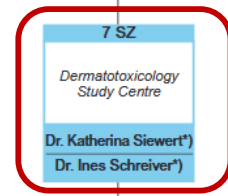
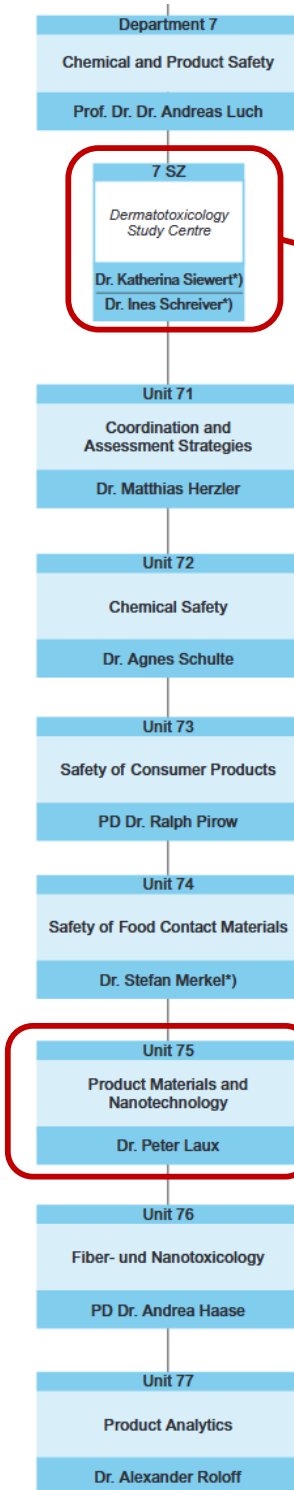
THE LANCET
Volume 387, Issue 10016, 23–29 January 2016, Pages 395–402

Peter Laux, Tewes Tralau, Jutta Tentschert, Annegret Blume, Sascha Al Dahouk, Wolfgang Bäuml, Eric Bernstein, Beatrice Bocca, Alessandro Alimonti, Helen Colebrook, Christa de Cuyper, Lars Dähne, Urs Hauri, Paul C Howard, Paul Janssen, Linda Katz, Bruce Klitzman, Nicolas Kluger, Lars Krutak, Thomas Platzek, Victoria Scott-Lang, Jørgen Serup, Wera Teubner, Ines Schreiber, Elena Wilkniß, Andreas Luch

Long perceived as a form of exotic self-expression in some social fringe groups, tattoos have left their maverick image behind and become mainstream, particularly for young people. Historically, tattoo-related health and safety regulations have focused on rules of hygiene and prevention of infections. Meanwhile, the increasing popularity of tattooing has led to the development of many new colours, allowing tattoos to be more spectacular than ever before. However, little is known about the toxicological risks of the ingredients used. For risk assessment, safe intradermal application of these pigments needs data for toxicity and biokinetics and increased knowledge about the removal of tattoos. Other concerns are the potential for phototoxicity, substance migration, and the possible metabolic conversion of tattoo ink ingredients into toxic substances and allergens. This paper reviews the current knowledge on the toxicological risks of tattooing, including the identification of allergens and products that are formed during laser-assisted tattoo removal. In this paper, we discuss the current knowledge on the toxicological risks of tattooing, including the identification of allergens and products that are formed during laser-assisted tattoo removal. In this paper, we discuss the current knowledge on the toxicological risks of tattooing, including the identification of allergens and products that are formed during laser-assisted tattoo removal. In this paper, we discuss the current knowledge on the toxicological risks of tattooing, including the identification of allergens and products that are formed during laser-assisted tattoo removal.

allergies against red tattoo inks. Without the mechanism and nature of causal agents being known, banning certain ingredients will be of little effect. What is therefore urgently needed is the establishment of a legal framework that considers tattooing as a unique application scenario.

Activities of the BfR on tattoo ink safety (selection)



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Infection Risks through Tattooing

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FAQ about tattoo inks

Updated BfR FAQ, 16 September 2019

In Germany, roughly 12 p
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DOI 10.17590/20201006-102053

Tattoo inks: risk assessment for Pigment Blue 15:3 and Pigment Green 7

BfR Opinion No 039/2020 issued 8 September 2020

To date, there is no binding regulation governing the components used in tattoo inks at the European level. The EU Commission and member states are currently consulting on a pro-

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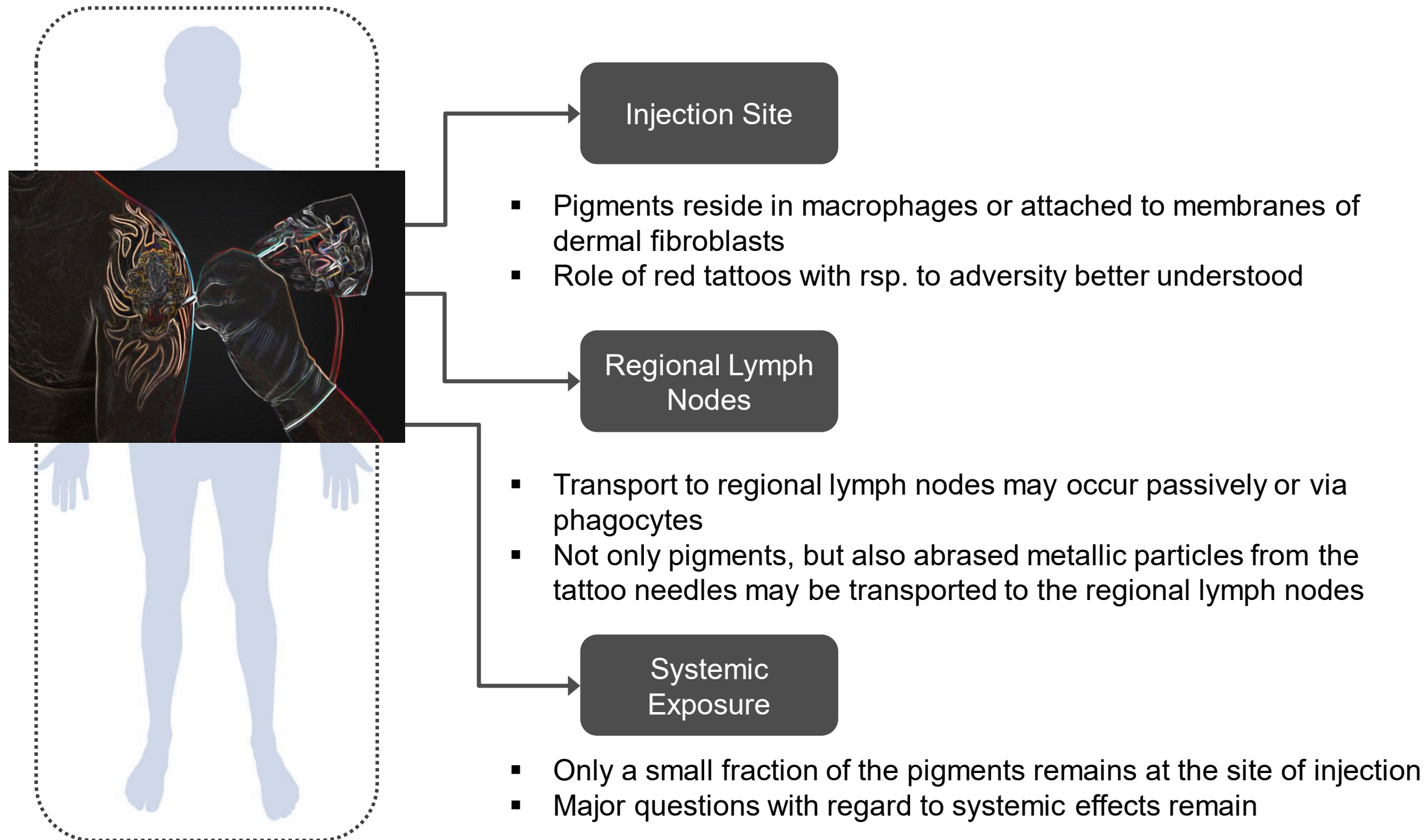
Tattoo inks: minimum requirements and test methods

Opinion No 031/2021 of the BfR of 14 October 2021

Tattoo inks contain pigments and additives. According to the provisions of the German Food, Consumer Goods and Feed Code (Lebensmittel-, Bedarfsgegenstände- und Futtermittelge-
setzbuch, LFGB), tattoo inks may not be used if there is any doubt as to their safety to
health. Substances or mixtures for tattooing purposes are regulated in the REACH Regula-
tion [entry 75 of Annex XVII of the REACH Regulation (Regulation (EC) No 1907/2006)].



What do we know now?



What has been achieved on the regulatory level?

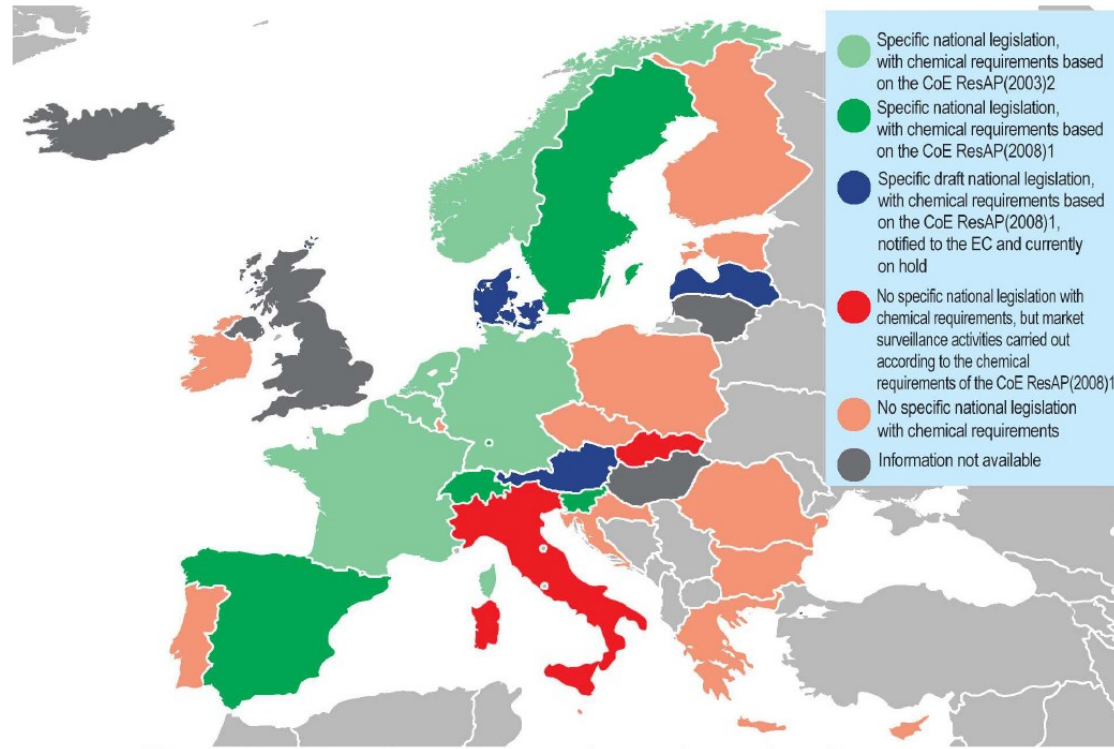
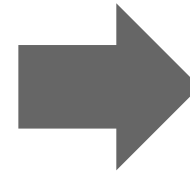


Figure 4.1: Legislative framework on tattoo/PMU products in the EU/EFTA countries.
JRC (2016) Safety of tattoos and permanent make-up



Tattoo inks and permanent make-up



Tattoos are a popular form of body art – at least 12 % of Europeans have them. In the 18-35 age group, twice as many are likely to have a tattoo.

The health risks of using dirty needles to inject the inks have been under scrutiny for a long time. Now, their chemical-related concerns have also been analysed and their risks have been regulated at EU level.

To protect European citizens, thousands of hazardous chemicals found in tattoo inks and permanent make-up are restricted in the EU under the REACH Regulation from January 2022.

The restriction covers, for example: chemicals that cause cancer or genetic mutations and chemicals that are toxic to reproduction as well as skin sensitisers and irritants. The aim is not to ban tattooing but to make the colours used in tattoos and permanent make-up safer.

Chronic allergic reactions and other inflammatory skin reactions from tattoo and permanent make-up inks are expected to decrease thanks to the restriction. More serious effects such as cancer, harm to our DNA or the reproductive system potentially originating from chemicals used in the inks could also decrease.



<https://www.texchem.co.uk/regulatory-compliance/reach/>

❖ Only a few EU countries have adopted the CoE resolutions to a national regulation.

❖ EU-wide regulation anchored in the existing legislative framework of REACH.

2nd International Conference on Tattoo Safety

- ❖ **Health Risks of Tattoos: Clinical Evidence**
- ❖ **Epidemiology and Risk Assessment**
- ❖ **Risk Assessment and Regulation: Chances and Challenges**
- ❖ **Analytics and Enforcement**
- ❖ **Stakeholder Positions**

2nd International Conference
on Tattoo Safety

18–19 November 2021, Berlin



GERMAN FEDERAL INSTITUTE FOR RISK ASSESSMENT



Thank you for your attention

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