



Product Safety analyses

Product Safety is an issue of very high concern for all kinds of materials and products. Our core activity in this area is analyses of materials intended for food contact (FCM).

Food contact materials cover a wide range of materials e.g. plastic and papers, but also additives, adhesives and printing inks. The requirements differ depending on the composition of the product but also where the product is intended to be used across the world. RISE Bioeconomy have long experience within FCM and a well-equipped laboratory with many various analytical techniques. We can help clarify the demands arising from the value chain and we can support compliance with the regulations or requirements (e.g. Commission Regulation 10/2011, national regulations as BfR XXXVI, FDA or industry guidelines) with product safety analyses. We can also offer support with product safety analyses during product development and problem solving.

Please contact us for a discussion about how we may help you!

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Examples of testing areas

- Overall and specific migration with simulants
- Set-off and migration of printing inks
- Mineral oils
- Test of barrier properties
- Screening migration "10 ppb level"
- Chlorinated compounds
- Volatile compounds and odour
- Customized analyses

PRODUCT SAFETY ANALYSES FOR FOOD CONTACT MATERIALS (FCM)

Overall migration

- Aqueous simulants
- 95 % ethanol and isooctane
- Olive oil
- MPPO (Tenax®)

Examples of analysis for paper and board

- Formaldehyde and glyoxal in water extract
- Metals in water extract
- Transfer of optical whitening agents and colour
- Pentachlorophenol (PCP)
- Polychlorinated biphenyls (PCB)
- Diisopropyl-naphthalens (DIPN)
- Michler's ketone and Bensophenone
- Monochloropropanediol (MCPD and dichloropropanol (DCP))
- Phthalates
- Primary aromatic amines (PAA)
- Mineral oils (MOSH/MOAH)
- Antimicrobial substances (Hemmhof)

Analysis of printing ink components

- Screening for migration of printing ink components
- Set-off migration
- Migration of mineral oils (MOSH/MOAH)

Barrier properties

- Test of barrier properties against migration of organic compounds (single-sided headspace cell)
- Oxygen and water vapour transmission (ASTM-rated Mocon equipment)

Screening "10 ppb"

Screening for migration of substances from food contact materials at 10 ppb level.

Examples of specific migrations

- Primary Aromatic Amines (PAAs)
- Bisphenol A
- Irganox, BHT
- Phthalates and adipates

Headspace analysis of volatile compounds

Used e.g for detection of set-off and for odour problems.

ACCREDITATION

RISE Bioeconomy is accredited according to ISO 17025.

Product safety

Overall migration to aqueous simulants and organic test media
Water extraction (EN 645, EN 647)
Metals in 3% acetic acid
Formaldehyde in water extracts (EN 1541)
Fastness of optical brighteners (EN 648)
Colour fastness (EN 646)
Bisphenol A in aqueous simulants
Primary aromatic amines (PAA)

Other accredited areas

- Environmental analysis (Chlorate in effluents)
- Optical calibration service
- Vibration testing of packages