



NIAS

Non-Intentionally Added Substances

Besides functional additives or other additives produced by paints and inks, food contact material may contain **non-intentionally added substances (NIAS)** originating from polymer and additive degradation or impurities in raw material.

Legislative framework

NIAS were first mentioned in Reg. (EU) 10/2011 and defined in the risk assessment guide lines drawn up by ILSI Europe.

However, **NIAS are not limited to plastics but also occur in all other non-plastic food contact materials.**

NIAS features

NIAS are not preventable, nor can they always be determined a priori. However, like any other food contact material, they must not alter the product or be harmful to health.

The producer is responsible for monitoring the presence of NIAS and assessing their impact on food safety.



NIAS SCREENING

Standardized validated methodologies do not exist for many migrants, especially NIAS, and their study can be very challenging.

In analytical terms, NIAS analysis presents some issues as in most cases they are not known until discovered and even then, it may not be possible to identify them.

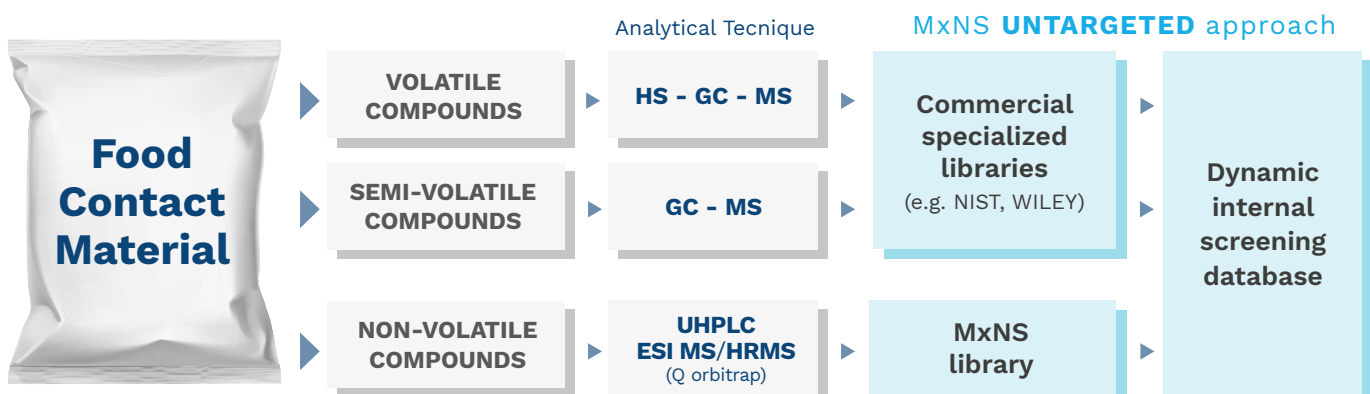
They can be sum up as:

- **Predictable NIAS** - due to material and condition of use;
- **Unpredictable NIAS**

This is the reason why different methodological approaches (target or non-target) can be considered.

Analytical methods

Mérieux NutriSciences performs analyses on VOC, SVOC and NON-VOC to detect different NIAS



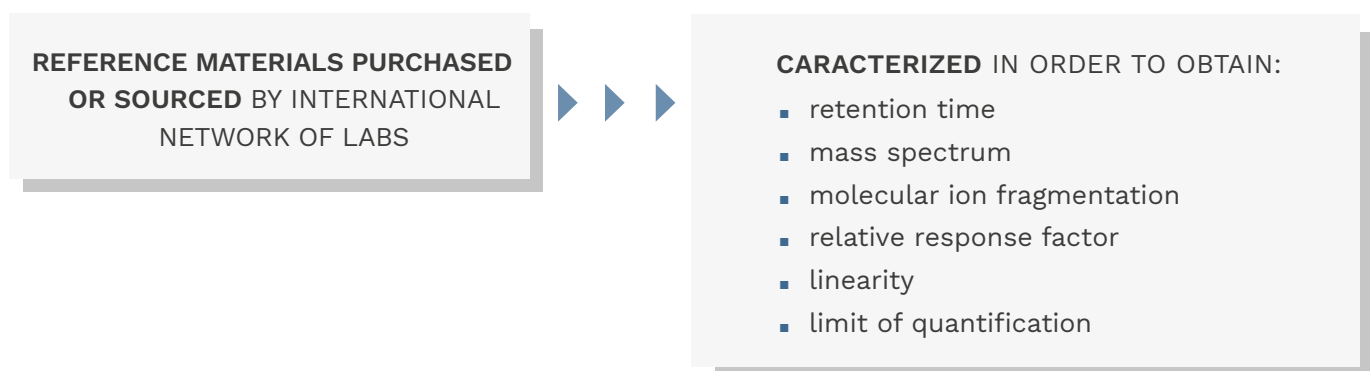
For screening of inorganic NIAS (e.g. metals) ICP-MS is typically used.

Mérieux NutriSciences service

To ensure the highest level of identification, Mérieux NutriSciences has developed a **dynamic internal screening database**.

This tool is an efficient way to overcome difficulties linked to the limits of internal or commercial libraries.

How does it work?



What's in the final REPORT?

- confidence level of the identification (e.g. confirmed/probable/tentative etc.), with specification of the criteria
- less compounds ultimately classified as *unknown*
- more accurate quantification of the identified ones
- traffic-light evaluation with a specific advice about the rating (each critical situation highlighted in yellow/red can be evaluated with a specific toxicological risk assessment)

The service is performed on FOOD CONTACT MATERIALS and on COSMETIC PACKAGING, with dedicated reporting and conclusions.



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