Annex 1.4

Matrix-specific questionnaires to accompany the sampling of urine and blood

(2nd round priority substances)

WP 7

Task 7.3

D7.6

Version 2.0

13th January 2020

Table of content

[Authors and Acknowledgement 3](#_Toc38971050)

[1 Introduction and Aims 4](#_Toc38971051)

[2 Questionnaire accompanying the sampling of urine 4](#_Toc38971052)

[2.3.1 Arsenic & its compounds 10](#_Toc38971056)

[2.3.2 Acrylamide 15](#_Toc38971057)

[2.3.3 Aprotic solvents 16](#_Toc38971058)

[2.3.4 Diisocyanates 20](#_Toc38971059)

[2.3.5 Lead & its compounds 23](#_Toc38971060)

[2.3.6 Mercury & its organic compounds 27](#_Toc38971061)

[2.3.7 Mycotoxins 33](#_Toc38971062)

[2.3.8 Pesticides 34](#_Toc38971063)

[2.3.9 UV filters – Benzophenones 37](#_Toc38971064)

[3 Questionnaire accompanying the sampling of blood 39](#_Toc38971065)

[3.3.1 Arsenic & its compounds 44](#_Toc38971069)

[3.3.2 Acrylamide 48](#_Toc38971070)

[3.3.3 Aprotic solvents 49](#_Toc38971071)

[3.3.4 Diisocyanates 54](#_Toc38971072)

[3.3.5 Lead & its compounds 57](#_Toc38971073)

[3.3.6 Mercury & its organic compounds 61](#_Toc38971074)

[3.3.7 Mycotoxins 66](#_Toc38971075)

[3.3.8 Pesticides 67](#_Toc38971076)

[3.3.9 UV filters – Benzophenones 70](#_Toc38971077)

# Authors and Acknowledgement

##### Lead authors

Marina Lacasaña, Beatriz González-Alzaga and Antonio F Hernández from the Andalusian School of Public Health (EASP)

##### Co-authors

Co-authors are members of the task 7.3. Below we list them individually by section of contribution, name, and short name of partner institution.

**Elaboration of specific questions on 2nd priority substances:**

|  |  |
| --- | --- |
| **2nd priority substances** | **Name (Partner)** |
| Arsenic & its compounds | **FIOH**: Jouni Mikkola; Sanni Uuksulainen**DPH:** Ivo Iavicoli; Maurizio Manno; Veruscka Leso. |
| Acrylamide | **MUW:** Michael Poteser; Hanns Moshammer **UBA:** Kim Pack |
| Aprotic solvents | **FIOH:** Jouni Mikkola; Simo Porras. |
| Diisocyanates | **FIOH:** Jouni Mikkola; Sanni Uuksulainen |
| Lead & its compounds | **UNIMORE:** Tommaso Filippini; Marco Vinceti |
| Mercury & its organic compounds | **DPH:** Ivo Iavicoli; Maurizio Manno; Veruscka Leso.**THL:** Merja Korkalainen; Päivi Ruokojärvi; Panu Rantakokko |
| Mycotoxins | **ANSES**: Jean-Luc Volatier |
| Pesticides | **EASP:** Beatriz González-Alzaga; Antonio Hernández Jerez; Marina Lacasaña |
| UV filters – Benzophenones | **CGL for UV filters – Benzophenones from MOH-IL:** Tamar Berman.**UBA**: Kim Pack |

This document has been created for the HBM4EU project. HBM4EU has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 733032.

# Introduction and Aims

When evaluating human samples for exposure with certain substances or substance groups, it can prove useful in some cases to have information available about potential exposure sources of the sample provider directly prior to the point in time where the sample was taken. This means that the questionnaires accompanying the sampling of a matrix (or matrix-specific questionnaires) specifically aim to mostly cover substances with a short half-life.

This difference to the basic questionnaire should be explicitly explained and continuously stressed to the interviewer staff during training.

The HBM4EU matrix-specific questionnaires have been designed to collect a select amount of information concerning individual characteristics of the participants and on different sources and routes of exposure to the 2nd round priority substances selected for study, with the aim to characterise as well as possible the level of exposure to these substances (where considered relevant) directly prior (past 24 or 48 hours) to the sampling.

As urine and blood are currently the most likely matrices to be analysed, questionnaires have been prepared accordingly. It might be necessary to adapt some wording and use specific questions in the urine questionnaire depending on the type of urine envisioned to be sampled (e.g. morning urine, spot urine, etc.).

Furthermore, questions might need to be adjusted or taken out according to the individual study design, e.g. in case there is only one label on the sample container, the questions pertaining to the labelling need to be merged.

Specific testing of these questionnaires in a subsample of a population still needs to be undertaken. It could be feasible to perform testing with representatives (or a subsample) of the envisaged group of participants right before a study using this questionnaire is conducted.

# Questionnaire accompanying the sampling of urine

In the following, the questionnaire accompanying the sampling of urine is presented.

The notes under Section 2.1 are important to consider when applying the questionnaire. This questionnaire is divided into two sections: a) general questions regarding the sample itself; b) questions specifically related to 2nd round priority substances. General questions will be applicable to all substances, while specific questions will be applicable only for the target substance(s) of the study. This structure allows us to easily identify the questions that are most likely to be needed to characterise the recent exposure to the substance(s).



|  |
| --- |
| QUESTIONNAIRE TO ACCOMPANY THE SAMPLING OF URINE(2nd ROUND PRIORITY SUBSTANCES) |

|  |
| --- |
| **QUESTIONNAIRE INFORMATION** |

|  |  |
| --- | --- |
| ID (PARTICIPANT) | |\_\_|\_\_|\_\_|\_\_|\_\_| |
| ID (INTERVIEWER) | |\_\_|\_\_|\_\_|\_\_|\_\_| |
| DATE OF THE INTERVIEW | |\_\_|\_\_| |\_\_|\_\_| |\_\_|\_\_|\_\_|\_\_| |
| START TIME | |\_\_|\_\_| : |\_\_|\_\_| |
| END TIME | |\_\_|\_\_| : |\_\_|\_\_| |
| PLACE |  |



This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 733032.

## Notes

|  |
| --- |
| Questions with a white background are to be addressed to and answered by the participant.  |

|  |
| --- |
| Questions with a grey background are to be answered by the interviewer or the study centre and should not be addressed directly to the participant. |

|  |
| --- |
| Questions with a light green background are to be asked only when first morning urine is collected. |

|  |
| --- |
| Questions with a light red background **only have to be asked if** (a) **urine sampling is not foreseen** in the survey **or** if (b) blood and urine sampling did not happen at the same time **(> 1 h between sampling of blood and sampling of urine**). |

## General questions regarding the sample itself

|  |  |
| --- | --- |
| **U1** | **Has the [first morning] urine sample been delivered?** |
|  | Yes |  | Please continue with question 2. |
|  | No |  | Please indicate the reason for missing submission of the morning urine sample below: |
|  |  |  | 1. Sampling was forgotten in the morning
 |  | [if foreseen: another appointment can be made now] |
|  |  |  | 1. Sampling container not available
 |  | [if foreseen: another appointment can be made now] |
|  |  |  | 1. No consent
 |  |  |
|  |  |  | 1. Other reason, that being: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |

|  |  |
| --- | --- |
| **U2** | **Was the urine sample collected in the provided container?** |
|  | Yes |  |  |
|  | No | ► | [It should be decided by the study owner if the sample will be discharged or kept. This information should be recorded.] |

**Questions U3 and U4 can be merged if it is foreseen to use only one label:**

|  |  |
| --- | --- |
| **U3** | **Is there a sampling label on the container?** |
|  | Yes |  |  |
|  | No | ► | Please add one to the container now. |

|  |  |
| --- | --- |
| **U4** | **Is there a label with the correct participant ID on the container?** |
|  | Interviewer: | Please cross-check label and title pages of all questionnaires asked. |  |
|  | Yes |  |  |
|  | No | ► | Please add one to the container now. |

|  |  |
| --- | --- |
| **U5** | **When was the [morning] urine sample obtained?** |
|  | Interviewer: | **Ask participant or copy from sampling label if this information is included.** Please check the information for plausibility! If the date is different to the date of the home visit, please note this down. The sample might have to be discarded. |
|  | **on** | **KaestchenKaestchen** | **KaestchenKaestchen** | **20KaestchenKaestchen** | **at** | **KaestchenKaestchen** | **:** | **KaestchenKaestchen** | **hrs** |
|  |  | Day | Month | Year |  | Hour |  | Minute |  |

|  |  |
| --- | --- |
| **U6** | **Is it really the first urine after waking up?** |
|  | Interviewer: | If the time of the sampling is not in the hours of the morning, meaning up to a max. 12 pm, ask the participant(s) whether this time is correct and whether it is really the first urine after waking up. |
|  | Yes |  |  |
|  | No |  | [It should be decided by the study owner if the sample will be discharged or kept. This information should be recorded.] |
|  | Don’t know | ► | [It should be decided by the study owner if the sample will be discharged or kept. This information should be recorded.] |
|  | Refused | ► | [It should be decided by the study owner if the sample will be discharged or kept. This information should be recorded.] |

|  |  |
| --- | --- |
| **U7** | **When was your last meal before urine sample collection?** |
|  | Interviewer: | Please consider also small snacks like fruit and sweets. |
|  | **on** | **KaestchenKaestchen** | **KaestchenKaestchen** | **20KaestchenKaestchen** | **at** | **KaestchenKaestchen** | **:** | **KaestchenKaestchen** | **hrs** |
|  |  | Day | Month | Year |  | Hour |  | Minute |  |

|  |  |
| --- | --- |
| **U8** | **When did you last urinate before urine sample collection?** |
|  | Interviewer: | **Ask participant or copy from sampling label if this information is included.** Please check the information for plausibility!  |
|  | **on** | **KaestchenKaestchen** | **KaestchenKaestchen** | **20KaestchenKaestchen** | **at** | **KaestchenKaestchen** | **:** | **KaestchenKaestchen** | **hrs** |
|  |  | Day | Month | Year |  | Hour |  | Minute |  |
|  |  |  |  |  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **U9** | **According to your information, the last visit to the toilet was at least 4 hours before sampling!** |
|  | Interviewer: | Check whether this is plausible and if not, ask all information again. |  |
|  | Yes |  |  |
|  | No | ► | [It should be decided by the study owner if the sample will be discharged or kept. This information should be recorded.] |

|  |  |
| --- | --- |
| **U10** | **How was the sample stored at home before collection?** |
|  | Refrigerator |  |  |
|  | Other cool place |  |  |
|  | Non-chilled |  |  |
|  |  |  | Don’t know |  | Refused |  |

**U11 should only be included if the study is foreseen to use containers big enough to collect all morning urine:**

|  |  |
| --- | --- |
| **U11** | **Is the morning urine sample complete? Complete means that all morning urine was collected for the urine sample!** |
|  | Yes |  |  |
|  | No |  | Please indicate the reason for incomplete morning urine sample: |
|  |  |  | 1. Forgot that all morning urine is collected
 |  | [if foreseen: another appointment can be made now] |
|  |  |  | 1. Something went wrong
 |  | [if foreseen: another appointment can be made now] |
|  |  |  | 1. The collection container was too small
 |  |  |
|  |  |  | 1. Other reason, that being: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |
|  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **U12** | **Were there any peculiarities with the sample or participant’s answers?** |
|  | No |  |  |
|  | Yes | which ones? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |
|  |  |  | Don’t know |  | Refused |  |

## Questions specifically related to 2nd round priority substances

### Arsenic & its compounds

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to one of the following** **facilities during the 24 hours prior to sampling?*** Glass, paint and/or pigment, pesticides, pharmaceuticals, Non-ferrous metallurgical industries;
* Coal power plant;
* Sewage sludge treatment plant;
* Waste incineration plant;
* Mining sites.
 |
|  | No |  |  |
|  | Yes |  | ► Go to question 1.1 |
|  | Don’t know |  |  |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to one of the aforementioned facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Have you inhaled smoke from the following energy sources inside your home during the 24 hrs prior to sampling?** |
|  | Charcoal/Coal |  |  |
|  | Wood (firewood, chips, pellets, etc.) |  |  |
|  |  | Don’t know |  | Refused |  |

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **3.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Fish and seafood**(e.g. salmon, tuna, snapper, seaweeds, crustaceans like lobster, crab, shellfish like oysters, mussels etc.) |  |  |  |  |  |  |
| **Cereals**(e.g. bread, crackers, grains, pasta, others than rice) |  |  |  |  |  |  |
| **Rice** |  |  |  |  |  |  |
| **Algae/seaweeds** |  |  |  |  |  |  |
| **Snails** |  |  |  |  |  |  |
| **Carrots** |  |  |  |  |  |  |
| **Poultry meats** |  |  |  |  |  |  |
| **Smoked food**(e.g. ham, smoked pork, smoked cheese, Frankfurters) |  |  |  |  |  |  |
| **Grilled food**(over open flame / burning embers) |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **4.** | **During the past 24 hrs prior to sampling, did you drink water from wells and artesian wells?**

|  |  |
| --- | --- |
| No |   |
| YesDon’t know |  |

 |

|  |  |  |
| --- | --- | --- |
| **5.** |  | **Before providing the sample, when did you last drink water from wells and artesian wells ?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |  |

|  |  |
| --- | --- |
| **6.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 6.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking) |   | Please continue with question 6.2. |
|  | **6.1.** | **How many cigarettes have you smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  | Refused |  |
|  | **6.2.** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hours |  |  |
|  | Don’t know  |  |  | Refused |  |

|  |  |
| --- | --- |
| **7.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | YesDon’t know  |   | Please continue with question 7.1 |
|  | **7.1.** | **How many loadings of snuff you have used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  |  | Don’t know  | Refused  |

|  |  |
| --- | --- |
| **8.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Home repairs/maintenance and construction activities**(e.g. wood or glass processing, use of cement, use of surface protection agents, use of wood preservatives, etc.) |  |  |  |  |  |  |
| **Gardening**(e.g. use of compost or sewage sludge as fertilizer, use of phosphate fertilizer) |  |  |  |  |  |  |
| **Handling metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
| **Use of dyes and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
| **Contact with smoke from outdoor open fire**(e.g. use of fireplace or campfire, backyard burning) |  |  |  |  |  |  |
| **Application of pesticides** |  |  |  |  |  |  |
|  |  | Refused |  |
| **8.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know |  Refused   |  |

|  |  |
| --- | --- |
| **9.** | **Did you take any homeopathic medication during the past 24 hrs prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **10.** | **Did you have contact with any chemotherapy drugs during the past 24 hrs prior to sampling?**  |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **11.** | **Did you have direct contact with minerals containing arsenic** **during the past 24 hrs prior to sampling?**  |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

### Acrylamide

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **1.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Roasted cereals** (for example puffed rice, popcorn, toasted oats, puffed wheat, etc.; excl. porridge),  |  |  |  |  |  |  |
| **Food grilled over an open flame/burning embers** |  |  |  |  |  |  |
| **Chips/French fries**  |  |  |  |  |  |  |
| **Potato chips (**packaged) |  |  |  |  |  |  |
| **Roasted coffee** |  |  |  |  |  |  |
| **Instant coffee**  |  |  |  |  |  |  |
| **Coffee substitutes on cereal base**  |  |  |  |  |  |  |
| **Coffee substitutes on chicory** |  |  |  |  |  |  |
|  |  | Refused |  |

### Aprotic solvents

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?*** DMA production plant
* Synthetic fibre production plant (e.g. polyacrylonitrile, acrylic, polyurethane elastane, aramid fibers)
* Textile industry
* Pharmaceutical production plant
* Places/sites where DMA containing paint removers are used
 |
|  | No |  |  |
|  | YesDon’t know  |  | ► Go to question 1.1. |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?*** DMF production plant
* Synthetic fibre production plant (e.g. polyacrylonitrile, acrylic fibres)
* Textile industry
* Pharmaceutical production plant
* Places/sites where DMF containing varnishes and coatings are used
* Places/sites where DMF containing cleaning products (e.g. paint removers) are used
* Places/sites where DMF containing pesticides are used
 |
|  | No |  |  |
|  | YesDon’t know |  | ► Go to question 2.1. |
|  | **2.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **3.** | **Have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?*** NMP production plant
* Polymer industry
* Petrochemical industry
* Places/sites where NMP containing coatings are manufactured or used
* Places/sites where NMP containing cleaning products (e.g. paint removers) are manufactured or used
* Electronics and semiconductor industries
* Battery industry
* Places/sites where NMP containing membrane are manufactured or used
* Agrochemical production plant
* Pharmaceutical production plant
* Cosmetics production plant
 |
|  | No |  |  |
|  | Yes |  | ► Go to question 3.1. |
|  | **3.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to a street with constant traffic during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 4.1 |
|  | Yes, I have been exposed to second hand smoke (passive smoking)Don’t know  |   | Please continue with question 4.2 |
|  | **4.1** | **How many cigarettes have you smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  |  |  |
|  | **4.2** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hoursDon’t know |  |  |
|  |  |  |  | Refused |  |
| **5.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | YesDon’t know  |  | Please continue with question 5.1. |
|  | **5.1.** | **How many loadings of snuff have you used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  | Don’t know  | Refused |  |

|  |  |
| --- | --- |
| **6.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Surface treatment**(e.g. paint removing products, etc.) |  |  |  |  |  |  |
| **Cleaning and reparation**(e.g. paint removing products etc.) |  |  |  |  |  |  |
| **Use of dyes and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
|  |  | Refused |  |
| **6.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know  |  | Refused |  |

|  |  |  |
| --- | --- | --- |
| **7.** | **When did you last use any of the following personal care products in the past 48 hours prior to sampling?** |  |
|  |  |  |  |  |  |  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Cosmetics** (e.g. make-up, nail polish) |  |  |  |  |  |  |
|  | Refused |  |  |

|  |  |
| --- | --- |
| **8.** | **Did you take any of the following types of medication during the past 24 hrs prior to sampling?** *(the interviewee will be invited to check the package leaflet before answering this question)* |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
| **Any medication in pill or capsule form containing DMA or NMP as excipient** |  |  |  |  |  |
|  |  | Refused |  |

### Diisocyanates

**Preservative should be added/present in the urine sample container (diisocyanate exposure). Citric acid is preferred.**

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to some of the following** **facilities during the 24 hours prior to sampling?*** Motor vehicle repair, garage, spray painting of vehicles
* Diisocyanate production plant
* Places/sites where polyurethane foams are used (e.g. house renovation)
* Places/sites where polyurethane sealants are used ((e.g. use in doors and windows)
* Places/sites where diisocyanate containing varnishes, coatings or adhesives are used (e.g. making furnitures and cabinets)
* foam plastic products production plant
* Welding and flame cutting of polyurethane coated metals
 |
|  | No |  |  |
|  | YesDon’t know  |  | ► Go to question 1.1. |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to some of the aforementioned facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 2.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking)Don’t know |   | Please continue with question 2.2. |
|  | **2.1.** | **How many cigarettes have you smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  | Refused |  |
|  | **2.2.** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hours |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **3.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | Yes |  | Please continue with question 3.1. |
|  | Don’t know |  |  |
|  | **3.1.** | **How many loadings of snuff you have used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  | Don’t know  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Surface treatment**(e.g. apply varnish, paint, finish, seals, strip or thin paint, apply fillers, use of anti-corrosive agents, etc.) |  |  |  |  |  |  |
| **Cleaning and reparation**(e.g. solvents, glues, cleaning chemicals, lubrication oils, degrease tools etc.) |  |  |  |  |  |  |
| **Home repairs/maintenance and construction activities**(e.g. wood or glass processing, use of cement, use of surface protection agents, etc.) |  |  |  |  |  |  |
| **Handling painted and polyurethane coated metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
|  |  | Refused |  |
| **4.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | No |  |  |
|  |  | Refused |  |

### Lead & its compounds

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **1.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Aged cheese** (e.g. cheddar, gouda, gruyere) |  |  |  |  |  |  |
| **Leafy vegetables**(e.g. basil, potatoes, carrots, leafy vegetables) |  |  |  |  |  |  |
| **Other vegetables**(e.g. oranges, grapes, apples) |  |  |  |  |  |  |
| **Wild mushrooms** |  |  |  |  |  |  |
| Hunt-related foods |  |  |  |  |  |  |
| **Cultivated mushrooms** |  |  |  |  |  |  |
| **Candies, confectionery and candy bars not chocolate** |  |  |  |  |  |  |
| **Chocolate/chocolate candy bars** |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **During the past 24 hrs prior to sampling, did you drink beverages from any of the following materials?** |
|  | Interviewer: | It is possible to tick more than one box in the list below. All beverages are asked for, including water, hot drinks and alcoholic drinks. |
|  | Glass bottle |  Yes  No  Don’t know |
|  | Glazed ceramic mug/glass  |  Yes  No  Don’t know |
|  | Unglazed ceramic mug/glass |  Yes  No  Don’t know |

|  |  |
| --- | --- |
| **3.** | **Before providing the sample, when did you last drink any beverages belonging to the following list?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Coffee** |  |  |  |  |  |  |
| **Tea** |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Surface treatment**(e.g. apply varnish, paint, finish, seals, strip or thin paint, apply fillers, use of anti-corrosive agents, etc.) |  |  |  |  |  |  |
| **Cleaning and reparation**(e.g. solvents, glues, cleaning chemicals, lubrication oils, degrease tools etc.) |  |  |  |  |  |  |
| **Home repairs/maintenance and construction activities**(e.g. wood or glass processing, use of cement, use of surface protection agents, etc.) |  |  |  |  |  |  |
| **Handling metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
| **Use of dyes and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
| **Plastic handling**(e.g. plastic gloves, reusable food and drink containers, plastic products processing) |  |  |  |  |  |  |
| **Contact with smoke from outdoor open fire**(e.g. use of fireplace or campfire, backyard burning) |  |  |  |  |  |  |
|  |  | Refused |  |
| **4.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **5.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 5.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking) |   | Please continue with question 5.2. |
|  | Don’t know  |  |  |
|  | **5.1.** | **How many cigarettes have your smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  | Refused |  |
|  | **5.2.** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hours |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **6.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | YesDon’t know  |   | Please continue with question 6.1. |
|  | **6.1.** | **How many loadings of snuff you have used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  | Don’t know   | Refused |  |

|  |  |
| --- | --- |
| **7.** | **When did you last use any of the following personal care products in the past 48 hours prior to sampling?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Cosmetics** (e.g. make-up, nail polish) |  |  |  |  |  |  |
|  |  | Refused |  |

### Mercury & its organic compounds

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to one of the following** **facilities during the last two months prior to sampling?*** Automotive, battery, electrical, paint and/or pigment, pharmaceuticals, fungicides, metallurgical industries;
* Cement production plant;
* Chemical processing plant;
* Coal power plant;
* Geothermal energy plant;
* Landfills;
* Recycling facilities;
* Sewage sludge treatment plant;
* Waste incineration plant.
 |
|  | No |  |  |
|  | Yes |  | ► Go to question 1.1. |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to one of the aforementioned facilities during the last two months prior to sampling?** |
|  |  |  | 1. Less than 30 minutes/day
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour/day
 |  |  |
|  |  |  | 1. Between 1 and 4 hours/day
 |  |  |
|  |  |  | 1. More than 4 hours/day
 |  |  |
|  |  | Don’t know |  | Refused |  |

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **2.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Fish and seafood** |  |  |  |  |  |  |
| Fresh water fish |  |  |  |  |  |  |
| Marine fish |  |  |  |  |  |  |
| Marine mammals |  |  |  |  |  |  |
| **White fish** (e.g. hake, snapper, sea bream) |  |  |  |  |  |  |
| **Blue fish (big size)** (e.g. mackerel, tuna, sword fish) |  |  |  |  |  |  |
| **Blue fish (small size)** (e.g. anchovy, herring) |  |  |  |  |  |  |
| **Salmon** |  |  |  |  |  |  |
| **Cephalopods** (e.g. squid, octopus) |  |  |  |  |  |  |
| **Farmed fish** |  |  |  |  |  |  |
| **Wild fish** |  |  |  |  |  |  |
| **Tinned fish** |  |  |  |  |  |  |
| **Locally caught fish** |  |  |  |  |  |  |
| **Fish fingers** |  |  |  |  |  |  |
| **Crustaceans and shellfish** (lobster, crayfish, scampi, crab, prawns, oysters, mussels, etc.) |  |  |  |  |  |  |
| **Smoked fish** |  |  |  |  |  |  |
| **Surimi and surimi based products** |  |  |  |  |  |  |
| **Cereals**(e.g. bread, crackers, grains, pasta, rice) |  |  |  |  |  |  |
| **Snails** |  |  |  |  |  |  |
| **White Meat** |  |  |  |  |  |  |
| **Red meat** |  |  |  |  |  |  |
| **Offal** |  |  |  |  |  |  |
| **Wild game** |  |  |  |  |  |  |
| **Nuts**  |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **3.** | **Have you been exposed to tobacco smoke during the 48 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 3.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking) |   | Please continue with question 3.2. |
|  | Don’t know |  |  |
|  | **3.1.** | **How many cigarettes have you smoked during the 48 hrs prior to sampling?** |
|  |  | 1-5 |   |  |
|  |  | 6-10 |   |  |
|  |  | 11 or more |   |  |
|  |  | Don’t know   | Refused |  |
|  | **3.2.** | **How long have you been exposed to second hand smoking during the 48 hrs prior to sampling?** |
|  |  | Less than an hour |   |  |
|  |  | More than 1 hour |   |  |
|  |  | More than 4 hours |   |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **Have you used snuff during the 48 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |   |  |
|  | Yes |   | Please continue with question 4.1. |
|  | Don’t know |   |  |
|  | **4.1.** | **How many loadings of snuff have you used during the 48 hrs prior to sampling?** |
|  |  | 1-2 |   |  |
|  |  | 2-5 |   |  |
|  |  | 5 or more |   |  |
|  |  | Don’t know   | Refused |  |

|  |  |
| --- | --- |
| **5.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the mercury**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Leather tanning** (i.e. use of leather preservatives |  |  |  |  |  |  |
| **Gardening**(e.g. use of compost or sewage sludge as fertilizer, use of phosphate fertilizer) |  |  |  |  |  |  |
| **Handling metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
| **Use of dyes, paints and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
| **Handling electrical parts** (e.g. constructing electronics, do soldering) |  |  |  |  |  |  |
| **Handling fluorescent light bulbs** |  |  |  |  |  |  |
| **Application of fungicides** |  |  |  |  |  |  |
|  |  | Refused |  |
| **5.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | No |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **6.** | **When did you last use skin-lightening creams in the past two months prior to sampling?** |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |  |
|  |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **7.** | **When did you last take homeopathic medication during the past two months prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **8.** | **When did you last take supplements (algae, spirulina etc.) during the past two months prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **9.** | **Did you have any of these situations at home during the past two months prior to sampling?** |
| **9.1. Breakage of a mercury thermometer** |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  | **9.1.1. If yes, did you ventilate the room when it happened?**Yes  No  Don’t know  | Refused |  |
| **9.2. Breakage of an energy-saving lamp** |
|  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  Refused  **9.2.1. If yes, did you ventilate the room when it happened?**Yes  No  Don’t know  |

|  |  |
| --- | --- |
| **10.** | **When did you last visit the dentist during the past two months prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

### Mycotoxins

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **1.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Dairy products** (e.g. milk, butter, cheese, yogurt) |  |  |  |  |  |  |
| **Cereals**(e.g. bread, crackers, grains, pasta, rice) |  |  |  |  |  |  |
| **Peanuts and other nuts** |  |  |  |  |  |  |
| **Chocolate** |  |  |  |  |  |  |
| **Coffee** |  |  |  |  |  |  |
|  |  | Refused |  |

### Pesticides

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to one of the following** **facilities during the 48 hours prior to sampling?*** Crop fields
* Greenhouses
* Sites where pesticides are produced/applied
 |
|  | No |  |  |
|  | Yes |  | ► Go to question 1.1 |
|  | Don’t know |  |  |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to one of the aforementioned facilities during the 48 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Has your house or your workplace been treated with biocides (fungicides and/or insecticides) in the 48 hours prior to sampling?**  |
|  | No |  |  |
|  | Yes |  |  |
|  | Don’t know |  |  |

|  |  |
| --- | --- |
| **3.** | **Have you used insecticide products to control or repel insects (including treatment of pets) at your house in the 48 hours prior to sampling? Please, consider insecticide sprays, tablets, liquids etc.** |
|  | No |  |  |
|  | Yes |  |  |
|  | Don’t know |  |  |

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **3.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Vegetables** |  |  |  |  |  |  |
| **Fruits (fresh fruit and juices)** |  |  |  |  |  |  |
| **Dairy products** |  |  |  |  |  |  |
| **Eggs** |  |  |  |  |  |  |
| **Cereals (bread, pasta, rice, cereal products)** |  |  |  |  |  |  |
| **White meat** |  |  |  |  |  |  |
| **Red meat** |  |  |  |  |  |  |
| **White fish** |  |  |  |  |  |  |
| **Blue fish** |  |  |  |  |  |  |
| **Crustaceans and shellfish** |  |  |  |  |  |  |
| **Processed fish** (e.g. fish fingers) |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **4.** | **During the past 48 hrs prior to sampling, did you drink water from wells and artesian wells?**

|  |  |
| --- | --- |
| No |  |
| YesDon’t know |  |

 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **5.** | **Have you used insect repellents or anti-parasite products for human use, during the past 48 hrs prior to sampling?**

|  |  |
| --- | --- |
| No |  |
| YesDon’t know |  |

 |

|  |  |
| --- | --- |
| **6.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Agricultural labour (outdoors)**  |  |  |  |  |  |  |
| **Agricultural labour (greenhouses)**  |  |  |  |  |  |  |
| **Application of pesticides**  |  |  |  |  |  |  |
| **Formulation of pesticides**  |  |  |  |  |  |  |
| **Gardening** |  |  |  |  |  |  |
| **Other activities involving using or handling pesticides**  |  |  |  |  |  |  |
|  |  | Refused |  |
| **6.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know |  |  |
|  |  | Refused |  |

### UV filters – Benzophenones

|  |  |
| --- | --- |
| **1.** | **Did you eat fast food in the past 24 hrs prior to sampling?** |
|  | Interviewer: | Fast foods are processed foods that are easily prepared and served quickly in snack bars and restaurants, typically packed to be ‘to-go’. |
|  | No |  | Please continue with question 2. |
|  | Yes |  | ► Go to question 1.1 |
|  | **1.1** | **How was the fast food packed that you ate during the past 24 hrs prior to sampling?** |
|  |  | Interviewer: | It is possible to tick more than one box in the list below. |
|  |  |  | 1. No convenience food at all
 |  |  |
|  |  |  | 1. In cardboard box
 |  |  |
|  |  |  | 1. In paper (e.g. bag, box, cup)
 |  |  |
|  |  |  | 1. In plastic (e.g. bag, box, cup)
 |  |  |

|  |  |
| --- | --- |
| **2.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Surface treatment**(e.g. apply varnish, paint, finish, seals, strip or thin paint, apply fillers, use of anti-corrosive agents, etc.) |  |  |  |  |  |  |
| **Cleaning and reparation**(e.g. solvents, glues, cleaning chemicals, lubrication oils, degrease tools etc.) |  |  |  |  |  |  |
| **Home repairs/maintenance and construction activities**(e.g. wood or glass processing, use of cement, use of surface protection agents, etc.) |  |  |  |  |  |  |
| **Use of dyes and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
|  |  | Refused |  |
| **2.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | No |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **3.** | **When did you last use any of the following personal care products in the past 48 hours prior to sampling?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Hair products**(e.g. perming products, hair spray or gel, dye, bleaching, beard products) |  |  |  |  |  |  |
| **Cosmetics** (e.g. make-up, nail polish) |  |  |  |  |  |  |
| **Body care products**(e.g. body lotion, perfume, shower gel, deodorant) |  |  |  |  |  |  |
|  **Sunscreen** |  |  |  |  |  |  |
|  |  | Refused |  |

**If the participant has not used sunscreen in the past 48 hrs. (see response to 3), this question can be skipped.**

|  |  |
| --- | --- |
| **4.** | **How did you apply sunscreen in the past 48 hrs prior to sampling?****As a…** |
|  |  | Cream |
|  |  | Spray (Aerosol) |
|  |  | Roll-On |
|  |  | Don’t know |  | Refused |  |

# Questionnaire accompanying the sampling of blood

In the following, the questionnaire accompanying the sampling of blood is presented.

The notes under Section 3.1 are important to consider when applying the questionnaire. This questionnaire is divided into two sections: a) general questions regarding the sample itself; b) questions specifically related to 2nd priority substances. General questions will be applicable to all substances, while specific questions will be applicable only for the target substance(s) of the study. This structure allows us to easily identify the questions that are most likely to be needed to characterize the recent exposure to the substance(s).



|  |
| --- |
| QUESTIONNAIRE TO ACCOMPANY THE SAMPLING OF BLOOD(2nd ROUND PRIORITY SUBSTANCES) |

|  |
| --- |
| **QUESTIONNAIRE INFORMATION** |

|  |  |
| --- | --- |
| ID (PARTICIPANT) | |\_\_|\_\_|\_\_|\_\_|\_\_| |
| ID (INTERVIEWER) | |\_\_|\_\_|\_\_|\_\_|\_\_| |
| DATE OF THE INTERVIEW | |\_\_|\_\_| |\_\_|\_\_| |\_\_|\_\_|\_\_|\_\_| |
| START TIME | |\_\_|\_\_| : |\_\_|\_\_| |
| END TIME | |\_\_|\_\_| : |\_\_|\_\_| |
| PLACE |  |



This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 733032.

## Notes

|  |
| --- |
| Questions with a white background are to be addressed to and answered by the participant.  |

|  |
| --- |
| Questions with a grey background are to be answered by the interviewer or the study centre and should not be addressed directly to the participant. |

|  |
| --- |
| Questions with a light red background **only have to be asked if** (a) **urine sampling is not foreseen** in the survey **or** if (b) blood and urine sampling did not happen at the same time **(> 1 h between sampling of blood and sampling of urine**). |

## General questions regarding the sample itself

|  |  |
| --- | --- |
| **B1** | **Has the blood sample been taken?** |
|  | Yes |  |  |
|  | No |  | Please indicate the reason for missing submission of the blood sample below: |
|  |  |  | 1. Sampling was spontaneously refused
 |  |  |
|  |  |  | 1. Unsuccessful puncture
 |  |  |
|  |  |  | 1. No consent
 |  |  |
|  |  |  | 1. Other reason, that being: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |

|  |  |
| --- | --- |
| **B2** | **When was the blood sample obtained?** |
|  | **on** | **KaestchenKaestchen** | **KaestchenKaestchen** | **20KaestchenKaestchen** | **at** | **KaestchenKaestchen** | **:** | **KaestchenKaestchen** | **hrs** |
|  |  | Day | Month | Year |  | Hour |  | Minute |  |

|  |  |
| --- | --- |
| **B3** | **When was your last meal before blood sample collection?** |
|  | Interviewer: | Please consider also small snacks like fruit and sweets. |
|  | **on** | **KaestchenKaestchen** | **KaestchenKaestchen** | **20KaestchenKaestchen** | **at** | **KaestchenKaestchen** | **:** | **KaestchenKaestchen** | **hrs** |
|  |  | Day | Month | Year |  | Hour |  | Minute |  |

|  |  |
| --- | --- |
| **B4** | **What total amount was sampled?** |
|  | Gross volume: | **KaestchenKaestchenKaestchen .Kaestchen mL** |

|  |  |
| --- | --- |
| **B5** | **If the gross volume was taken in sub-samples: How many sub-samples were taken?** |
|  |  | **Amount** | **Volume taken in each sub-sample** |  |  |  |  |  |  |
|  | Small tubes | **KaestchenKaestchen** | **KaestchenKaestchenKaestchen .Kaestchen mL** |  |  |  |  |  |  |
|  | Large tubes | **KaestchenKaestchen** | **KaestchenKaestchenKaestchen .Kaestchen mL** |  |  |  |  |  |  |

**Questions B6 and B7 can be merged if it is only foreseen to use one label**

|  |  |
| --- | --- |
| **B6** | **Is there a sampling label on the container?** |
|  | Yes |  |  |
|  | No | ► | Please add one to the container now. |

|  |  |
| --- | --- |
| **B7** | **Is there a label with the correct participant ID on the container?** |
|  | Interviewer: | Please cross-check label and title pages of all questionnaires asked. |  |
|  | Yes |  |  |
|  | No | ► | Please add one to the container now. |

|  |  |
| --- | --- |
| **B8** | **Were there any peculiarities with the sample or participant’s answers?** |
|  | No |  |  |
|  | Yes | which ones? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
|  |  |  |  |
|  |  |  | Don’t know |  | Refused |  |

## Questions specifically related to 2nd round priority substances

Questions with a light red background **only have to be asked if** (a) **urine sampling is not foreseen** in the survey **or** if (b) blood and urine sampling did not happen at the same time **(> 1 h between sampling of blood and sampling of urine**).

### Arsenic & its compounds

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to one of the following** **facilities during the 24 hours prior to sampling?*** Glass, paint and/or pigment, pesticides, pharmaceuticals, Non-ferrous metallurgical industries;
* Coal power plant;
* Sewage sludge treatment plant;
* Waste incineration plant;
* Mining sites.
 |
|  | No |  | Please continue with question 2. |
|  | Yes |  | ► Go to question 1.1 |
|  | Don’t know |  |  |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to one of the aforementioned facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Have you inhaled smoke from the following energy sources inside your home during the 24 hrs prior to sampling?** |
|  | Charcoal/Coal |  |  |
|  | Wood (firewood, chips, pellets, etc.) |  |  |
|  |  | Don’t know |  | Refused |  |

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **3.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Fish and seafood**(e.g. salmon, tuna, snapper, seaweeds, crustaceans like lobster, crab, shellfish like oysters, mussels etc.) |  |  |  |  |  |  |
| **Cereals**(e.g. bread, crackers, grains, pasta, rice) |  |  |  |  |  |  |
| **Snails** |  |  |  |  |  |  |
| **Carrots** |  |  |  |  |  |  |
| **Poultry meats** |  |  |  |  |  |  |
| **Smoked food**(e.g. ham, smoked pork, smoked cheese, Frankfurters) |  |  |  |  |  |  |
| **Grilled food**(over open flame / burning embers) |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **4.** | **During the past 24 hrs prior to sampling, did you drink water from wells and artesian wells?**

|  |  |
| --- | --- |
| No |  |
| YesDon’t know |  |

 |

|  |  |  |
| --- | --- | --- |
| **5.** |  | **Before providing the sample, when did you last drink water from wells and artesian wells ?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
|  |  |  |  |  |  |
|  |  |  | Refused |  |

|  |  |
| --- | --- |
| **6.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 6.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking) |   | Please continue with question 6.2. |
|  | **6.1.** | **How many cigarettes have you smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  | Refused |  |
|  | **6.2.** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hours |  |  |
|  | Don’t know  |  |  | Refused |  |

|  |  |
| --- | --- |
| **7.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | YesDon’t know  |   | Please continue with question 7.1 |
|  | **7.1.** | **How many loadings of snuff you have used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  |  | Don’t know  | Refused  |

|  |  |
| --- | --- |
| **8.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Home repairs/maintenance and construction activities**(e.g. wood or glass processing, use of cement, use of surface protection agents, use of wood preservatives, etc.) |  |  |  |  |  |  |
| **Gardening**(e.g. use of compost or sewage sludge as fertilizer, use of phosphate fertilizer) |  |  |  |  |  |  |
| **Handling metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
| **Use of dyes and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
| **Contact with smoke from outdoor open fire**(e.g. use of fireplace or campfire, backyard burning) |  |  |  |  |  |  |
| **Application of pesticides** |  |  |  |  |  |  |
|  |  | Refused |  |
| **8.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **9.** | **Did you take any homeopathic medication during the past 24 hrs prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **10.** | **Did you have contact with any chemotherapy drugs during the past 24 hrs prior to sampling?**  |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **11.** | **Did you have direct contact with minerals containing arsenic** **during the past 24 hrs prior to sampling?**  |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

### Acrylamide

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **1.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Roasted cereals** (for example puffed rice, popcorn, toasted oats, puffed wheat, etc.; excl. porridge),  |  |  |  |  |  |  |
| **Food grilled over an open flame/burning embers** |  |  |  |  |  |  |
| **Chips/French fries**  |  |  |  |  |  |  |
| **Potato chips (**packaged) |  |  |  |  |  |  |
| **Roasted coffee** |  |  |  |  |  |  |
| **Instant coffee**  |  |  |  |  |  |  |
| **Coffee substitutes on cereal base**  |  |  |  |  |  |  |
| **Coffee substitutes on chicory** |  |  |  |  |  |  |
|  |  | Refused |  |

### Aprotic solvents

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?*** DMA production plant
* Synthetic fibre production plant (e.g. polyacrylonitrile, acrylic, polyurethane elastane, aramid fibers)
* Textile industry
* Pharmaceutical production plant
* Places/sites where DMA containing paint removers are used
 |
|  | No |  |  |
|  | YesDon’t know  |  | ► Go to question 1.1 |
|  | **1.1** | **How long in total have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?*** DMF production plant
* Synthetic fibre production plant (e.g. polyacrylonitrile, acrylic fibres)
* Textile industry
* Pharmaceutical production plant
* Places/sites where DMF containing varnishes and coatings are used
* Places/sites where DMF containing cleaning products (e.g. paint removers) are used
* Places/sites where DMF containing pesticides are used
 |
|  | No |  |  |
|  | YesDon’t know |  | ► Go to question 2.1. |
|  | **2.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **3** | **Have you been outdoors (walking, cycling, etc.) next to some of the following facilities during the 24 hours prior to sampling?*** NMP production plant
* Polymer industry
* Petrochemical industry
* Places/sites where NMP containing coatings are manufactured or used
* Places/sites where NMP containing cleaning products (e.g. paint removers) are manufactured or used
* Electronics and semiconductor industries
* Battery industry
* Places/sites where NMP containing membrane are manufactured or used
* Agrochemical production plant
* Pharmaceutical production plant
* Cosmetics production plant
 |
|  | No |  |  |
|  | Yes |  | ► Go to question 3.1. |
|  | **3.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to a street with constant traffic during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 4.1 |
|  | Yes, I have been exposed to second hand smoke (passive smoking)Don’t know  |   | Please continue with question 4.2 |
|  | **4.1** | **How many cigarettes have you smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  |  |  |
|  | **4.2** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hoursDon’t know |  |  |
|  |  |  |  | Refused |  |
| **5.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | YesDon’t know  |  | Please continue with question 5.1. |
|  | **5.1.** | **How many loadings of snuff you have used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  | Don’t know  | Refused |  |

|  |  |
| --- | --- |
| **6.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Surface treatment**(e.g. paint removing products, etc.) |  |  |  |  |  |  |
| **Cleaning and reparation**(e.g. paint removing products etc.) |  |  |  |  |  |  |
|  |  | Refused |  |
| **6.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **7.** | **Did you take any of the following types of medication during the past 24 hrs prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 5 hours** | **Between 5 and 12 hours** | **Between 12 and 24 hours** | **Don’t know** |
| **Any medication in pill or capsule form containing DMA as excipient** |  |  |  |  |  |
|  |  | Refused |  |

### Diisocyanates

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to some of the following** **facilities during the 24 hours prior to sampling?*** Motor vehicle repair, garage, spray painting of vehicles
* Diisocyanate production plant
* Places/sites where polyurethane foams are used (e.g. house renovation)
* Places/sites where polyurethane sealants are used ((e.g. use in doors and windows)
* Places/sites where diisocyanate containing varnishes, coatings or adhesives are used (e.g. making furnitures and cabinets)
* foam plastic products production plant
* Welding and flame cutting of polyurethane coated metals
 |
|  | No |  |  |
|  | YesDon’t know  |  | ► Go to question 1.1. |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to some of the aforementioned facilities during the 24 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 2.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking)Don’t know |   | Please continue with question 2.2. |
|  | **2.1.** | **How many cigarettes have you smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  | Refused |  |
|  | **2.2.** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hours |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **3.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | Yes |  | Please continue with question 3.1. |
|  | **3.1.** | **How many loadings of snuff you have used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  |  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Surface treatment**(e.g. apply varnish, paint, finish, seals, strip or thin paint, apply fillers, use of anti-corrosive agents, etc.) |  |  |  |  |  |  |
| **Cleaning and reparation**(e.g. solvents, glues, cleaning chemicals, lubrication oils, degrease tools etc.) |  |  |  |  |  |  |
| **Home repairs/maintenance and construction activities**(e.g. wood or glass processing, use of cement, use of surface protection agents, etc.) |  |  |  |  |  |  |
| **Handling painted and polyurethane coated metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
|  |  | Refused |  |
| **4.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | No |  |  |
|  |  | Refused |  |

### Lead & its compounds

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **1.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Aged cheese** (e.g. cheddar, gouda, gruyere) |  |  |  |  |  |  |
| **Leafy vegetables**(e.g. basil, potatoes, carrots, leafy vegetables) |  |  |  |  |  |  |
| **Other vegetables**(e.g. oranges, grapes, apples) |  |  |  |  |  |  |
| **Wild mushrooms** |  |  |  |  |  |  |
| **Cultivated mushrooms** |  |  |  |  |  |  |
| **Hunt-related foods** |  |  |  |  |  |  |
| **Candies, confectionery and candy bars not chocolate** |  |  |  |  |  |  |
| **Chocolate/chocolate candy bars** |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **During the past 24 hrs prior to sampling, did you drink beverages from any of the following materials?** |
|  | Interviewer: | It is possible to tick more than one box in the list below. All beverages are asked for, including water, hot drinks and alcoholic drinks. |
|  | Glass bottle |  Yes  No  Don’t know |
|  | Glazed ceramic mug/glass  |  Yes  No  Don’t know |
|  | Unglazed ceramic mug/glass |  Yes  No  Don’t know |

|  |  |
| --- | --- |
| **3.** | **Before providing the sample, when did you last drink any beverages belonging to the following list?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Coffee** |  |  |  |  |  |  |
| **Tea** |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Surface treatment**(e.g. apply varnish, paint, finish, seals, strip or thin paint, apply fillers, use of anti-corrosive agents, etc.) |  |  |  |  |  |  |
| **Cleaning and reparation**(e.g. solvents, glues, cleaning chemicals, lubrication oils, degrease tools etc.) |  |  |  |  |  |  |
| **Home repairs/maintenance and construction activities**(e.g. wood or glass processing, use of cement, use of surface protection agents, etc.) |  |  |  |  |  |  |
| **Handling metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
| **Use of dyes and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
| **Plastic handling**(e.g. plastic gloves, reusable food and drink containers, plastic products processing) |  |  |  |  |  |  |
| **Contact with smoke from outdoor open fire**(e.g. use of fireplace or campfire, backyard burning) |  |  |  |  |  |  |
|  |  | Refused |  |
| **4.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **5.** | **Have you been exposed to tobacco smoke during the 24 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 5.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking)Don’t know  |     | Please continue with question 5.2. |
|  | **5.1.** | **How many cigarettes have you smoked during the 24 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  | Don’t know  | Refused |  |
|  | **5.2.** | **How long have you been exposed to second hand smoking during the 24 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hours |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **6.** | **Have you used snuff during the 24 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | YesDon’t know  |   | Please continue with question 6.1. |
|  | **6.1.** | **How many loadings of snuff you have used during the 24 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  | Don’t know   | Refused |  |

|  |  |
| --- | --- |
| **7.** | **When did you last use any of the following personal care products in the past 48 hours prior to sampling?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Cosmetics** (e.g. make-up, nail polish) |  |  |  |  |  |  |
|  |  | Refused |  |

### Mercury & its organic compounds

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to one of the following** **facilities during the last two months prior to sampling?*** Automotive, battery, electrical, paint and/or pigment, pharmaceuticals, fungicides, metallurgical industries;
* Cement production plant;
* Chemical processing plant;
* Coal power plant;
* Geothermal energy plant;
* Landfills;
* Recycling facilities;
* Sewage sludge treatment plant;
* Waste incineration plant.
 |
|  | No |  | Please continue with question 2. |
|  | Yes |  | ► Go to question 1.1. |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to one of the aforementioned facilities during the last two months prior to sampling?** |
|  |  |  | 1. Less than 30 minutes/day
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour/day
 |  |  |
|  |  |  | 1. Between 1 and 4 hours/day
 |  |  |
|  |  |  | 1. More than 4 hours/day
 |  |  |
|  |  | Don’t know |  | Refused |  |

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **2.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Fish and seafood** |  |  |  |  |  |  |
| Fresh water fish |  |  |  |  |  |  |
| Marine fish |  |  |  |  |  |  |
| Marine mammals |  |  |  |  |  |  |
| **White fish** (e.g. hake, snapper, sea bream) |  |  |  |  |  |  |
| **Blue fish (big size)** (e.g. mackerel, tuna, sword fish) |  |  |  |  |  |  |
| **Blue fish (small size)** (e.g. anchovy, herring) |  |  |  |  |  |  |
| **Salmon** |  |  |  |  |  |  |
| **Cephalopods** (e.g. squid, octopus) |  |  |  |  |  |  |
| **Farmed fish** |  |  |  |  |  |  |
| **Wild fish** |  |  |  |  |  |  |
| **Tinned fish** |  |  |  |  |  |  |
| **Locally caught fish** |  |  |  |  |  |  |
| **Fish fingers** |  |  |  |  |  |  |
| **Crustaceans and shellfish** (lobster, crayfish, scampi, crab, prawns, oysters, mussels, etc.) |  |  |  |  |  |  |
| **Smoked fish** |  |  |  |  |  |  |
| **Surimi and surimi based products** |  |  |  |  |  |  |
| **Cereals**(e.g. bread, crackers, grains, pasta, rice) |  |  |  |  |  |  |
| **Snails** |  |  |  |  |  |  |
| **White Meat** |  |  |  |  |  |  |
| **Red meat** |  |  |  |  |  |  |
| **Offal** |  |  |  |  |  |  |
| **Wild game** |  |  |  |  |  |  |
| **Nuts**  |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **3.** | **Have you been exposed to tobacco smoke during the 48 hrs prior to sampling?**  |
|  | No |  |  |
|  | Yes, I have smoked |  | Please continue with question 3.1. |
|  | Yes, I have been exposed to second hand smoke (passive smoking) |   | Please continue with question 3.2. |
|  | **3.1.** | **How many cigarettes have you smoked during the 48 hrs prior to sampling?** |
|  |  | 1-5 |  |  |
|  |  | 6-10 |  |  |
|  |  | 11 or more |  |  |
|  |  |  | Refused |  |
|  | **3.2.** | **How long have you been exposed to second hand smoking during the 48 hrs prior to sampling?** |
|  |  | Less than an hour |  |  |
|  |  | More than 1 hour |  |  |
|  |  | More than 4 hours |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **4.** | **Have you used snuff during the 48 hrs prior to sampling?** |
|  | Interviewer: | This refers to a variety of smokeless tobacco products delivered through oral mucosa or nasal cavity. |
|  | No |  |  |
|  | Yes |  | Please continue with question 4.1. |
|  | **4.1.** | **How many loadings of snuff you have used during the 48 hrs prior to sampling?** |
|  |  | 1-2 |  |  |
|  |  | 2-5 |  |  |
|  |  | 5 or more |  |  |
|  |  |  | Refused |  |

|  |  |
| --- | --- |
| **5.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to mercury**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Leather tanning** (i.e. use of leather preservatives |  |  |  |  |  |  |
| **Gardening**(e.g. use of compost or sewage sludge as fertilizer, use of phosphate fertilizer) |  |  |  |  |  |  |
| **Handling metals**(e.g. welding, use of metals and metal alloys, etc.) |  |  |  |  |  |  |
| **Use of dyes, paints and inks**(e.g. use of hair or textile dyes, use of tattoo ink, printing, pigments) |  |  |  |  |  |  |
| **Handling electrical parts** (e.g. constructing electronics, do soldering) |  |  |  |  |  |  |
| **Handling fluorescent light bulbs** |  |  |  |  |  |  |
| **Application of fungicides** |  |  |  |  |  |  |
|  |  | Refused |  |
| **5.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | No |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **6.** | **When did you last use skin-lightening creams in the past two months prior to sampling?** |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |  |
|  |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **7.** | **When did you last take homeopathic medication during the past two months prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **8.** | **When did you last take supplements (algae, spirulina etc.) during the past two months prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |
| --- | --- |
| **9.** | **Did you have any of these situations at home during the past two months prior to sampling?** |
| **9.1. Breakage of a mercury thermometer** |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  | **9.1.1. If yes, did you ventilate the room when it happened?**Yes  No  Don’t know  | Refused |  |
| **9.2. Breakage of an energy-saving lamp** |
|  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  Refused  **9.2.1. If yes, did you ventilate the room when it happened?**Yes  No  Don’t know  |

|  |  |
| --- | --- |
| **10.** | **When did you last visit the dentist during the past two months prior to sampling?** |
|  |  |  |  |  |  |
|  | **Not at all** | **Less than 72 hours** | **Between 3 and 30 days** | **Between 30 and 60 days** | **Don’t know** |
|  |  |  |  |  |  |
|  |  | Refused |  |

### Mycotoxins

**If the participant has not eaten in the past 48 hrs. (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **1.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Dairy products** (e.g. milk, butter, cheese, yogurt) |  |  |  |  |  |  |
| **Cereals**(e.g. bread, crackers, grains, pasta, rice) |  |  |  |  |  |  |
| **Peanuts and other nuts** |  |  |  |  |  |  |
| **Chocolate** |  |  |  |  |  |  |
| **Coffee** |  |  |  |  |  |  |
|  |  | Refused |  |

### Pesticides

|  |  |
| --- | --- |
| **1.** | **Have you been outdoors (walking, cycling, etc.) next to one of the following** **facilities during the 48 hours prior to sampling?*** Crop fields
* Greenhouses
* Sites where pesticides are produced
 |
|  | No |  |  |
|  | Yes |  | ► Go to question 1.1 |
|  | Don’t know |  |  |
|  | **1.1.** | **How long in total have you been outdoors (walking, cycling, etc.) next to one of the aforementioned facilities during the 48 hours prior to sampling?** |
|  |  |  | 1. Less than 30 minutes
 |  |  |
|  |  |  | 1. Between 30 minutes and 1 hour
 |  |  |
|  |  |  | 1. Between 1 and 4 hours
 |  |  |
|  |  |  | 1. More than 4 hours
 |  |  |
|  |  | Don’t know |  | Refused |  |

|  |  |
| --- | --- |
| **2.** | **Has your house or your workplace been treated with biocides (fungicides and/or insecticides) in the 48 hours prior to sampling?**  |
|  | No |  |  |
|  | Yes |  |  |
|  | Don’t know |  |  |

|  |  |
| --- | --- |
| **3.** | **Have you used insecticide products to control or repel insects (including treatment of pets) at your house in the 48 hours prior to sampling? Please, consider insecticide sprays, tablets, liquids etc.** |
|  | No |  |  |
|  | Yes |  |  |
|  | Don’t know |  |  |

**If the participant has not eaten in the past 48 hrs (see response to U7), this question can be skipped.**

|  |  |
| --- | --- |
| **3.** | **Before providing the sample, when did you last eat any food belonging to the following food groups?** |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Vegetables** |  |  |  |  |  |  |
| **Fruits (fresh fruit and juices)** |  |  |  |  |  |  |
| **Dairy products** |  |  |  |  |  |  |
| **Eggs** |  |  |  |  |  |  |
| **Cereals (bread, pasta, rice, cereal products)** |  |  |  |  |  |  |
| **White meat** |  |  |  |  |  |  |
| **Red meat** |  |  |  |  |  |  |
| **White fish** |  |  |  |  |  |  |
| **Blue fish** |  |  |  |  |  |  |
| **Crustaceans and shellfish** |  |  |  |  |  |  |
| **Processed fish** (e.g. fish fingers) |  |  |  |  |  |  |
|  |  | Refused |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **4.** | **During the past 48 hrs prior to sampling, did you drink water from wells and artesian wells?**

|  |  |
| --- | --- |
| No |  |
| YesDon’t know |  |

 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **5.** | **Have you used insect repellents or anti-parasite products for human use, during the past 48 hrs prior to sampling?**

|  |  |
| --- | --- |
| No |  |
| YesDon’t know |  |

 |

|  |  |
| --- | --- |
| **6.** | **During the past 48 hrs prior to sampling, when did you last participate in any of the following activities?** |
|  | Interviewer: | It is important that the participant understands this question aims at investigating all activities (e.g. housework, DIY activities, hobbies) that could cause a **non-occupational exposure to the substance**.  |
|  | **Not at all** | **Less than 12 hours** | **Between 12 and 24 hours** | **Between 24 and 48 hours** | **More than 48 hours ago** | **Don’t know** |
| **Agricultural labour (outdoors)**  |  |  |  |  |  |  |
| **Agricultural labour (greenhouses)**  |  |  |  |  |  |  |
| **Application of pesticides**  |  |  |  |  |  |  |
| **Formulation of pesticides**  |  |  |  |  |  |  |
| **Gardening** |  |  |  |  |  |  |
| **Other activities involving using or handling pesticides**  |  |  |  |  |  |  |
|  |  | Refused |  |
| **6.1.** | **Did you wear personal protection equipment (e.g. a facemask) during one or more of the above-mentioned activities?** |  |  |
|  | Yes |  |  |
|  | NoDon’t know |  |  |
|  |  | Refused |  |

### UV filters – Benzophenones

UV Filters (Benzophenones) will not be measured in blood (according to the CGL). Therefore, specific questions on these substances have been removed from the questionnaire to accompany the sampling of blood (2nd priority substances).