

## "SAMPLES PREPARATION"

### 1) COMPOSITION OF THE VALIDATION SET(\*)

Each laboratory will receive a VALIDATION SET consisting of:

- **4 samples in GLASS TEST TUBES** of a lyophilised food product (proteinaceous/amidaceous/lipid matrix – identified with "APG") with decreasing concentrations of BPA evenly distributed between 0 and 2 mg/kg (matrix-matched calibration curve). The sample with the number 1 presents the highest concentration, whereas the one with the number 4 presents the lowest concentration. These are combined with 1 sample of the same matrix with the role of blank (BPA free).

These samples will be used for the **calibration curve(\*)**.

(\*) for further information on the "Validation set" and on the "Calibration curve" (please see the "PRESENTATION LETTER")

Labels:

- 1-APG-cc (highest concentration)
- 2-APG-cc
- 3-APG-cc
- 4-APG-cc (lowest concentration)
- Blank-cc

- **3 spike samples in VIALS** with decreasing concentrations of BPA in acetonitrile evenly distributed between 0 and 2 mg/kg (solvent calibration curve). Here again, the sample with the number 1 presents the highest concentration, whereas the one with the number 3 presents the lowest concentration. These are combined with 1 sample of the same solvent with the role of blank (BPA free),

Labels:

- 1-Spike (highest concentration)
- 2-Spike
- 3-Spike (lowest concentration)
- Solvent

- **2 samples in ALUMINIUM TUBES** of a food product in its unaltered state (with the same proteinaceous/amidaceous/lipid matrix identified with "APG", just lyophilised) with two different concentrations of BPA. Repeatability tests will be performed on these samples.

Labels:

- a-APG-Tube
- b-APG-Tube

The letters "a" e "b" identify coatings with different chemical compositions.

- **2 samples in ALUMINIUM TUBES** of a food product in its unaltered state with vegetable matrix in olive oil (codified as "VG") with concentrations of BPA on two levels. Repeatability tests will be performed on these samples.

Labels:

- a-VG-Tube
- b-VG-Tube

The letters "a" e "b" identify coatings with different chemical compositions.

## 2) SAMPLE PREPARATION: GENERAL INSTRUCTIONS

- ✓ Handling operations and preservation of samples must be carried out exclusively with BPA-free materials. Avoid using plastic or varnished metals and use uncoated glass, steel and aluminium instead;
- ✓ Analyse within 3 days of receipt of the sample, in the meanwhile preferably store at 2-4°C.

## 3) SAMPLE PREPARATION: GLASS TEST TUBES WITH LYOPHILISED MATERIAL

- ✓ Remove carefully and gently the aluminium cap.
- ✓ Remove the gold cap on the test tube. Remove the protective paper tab containing the silica gel packets and the oxygen absorbers.
- ✓ The sample is compressed and covered by a white round seal. Gently press with a little spatula one side of the seal and push it down to move the disc upwards. Use the tweezers to remove the seal from the test tube, recover with the spatula the eventual sample residue on the seal and pour it in the beaker.
- ✓ Pour the lyophilised sample in the beaker. Being the sample compressed, it will stick to the walls of the test tube. Tap the compressed sample with the spatula, being careful not to lose part of it outside of the beaker.
- ✓ Once you have transferred the sample in the beaker, remove all lumps with the spatula.
- ✓ Traces of the sample in the test tube can be removed by adjusting the volume setting of the pipette to 10mL and by pouring 10mL of distilled water in the test tube and gently shaking it to collect all the residue. Pour the water in the beaker with the sample (see the table in attachment for the total volume of water to be added). All the sample in the beaker must be recovered without exceeding the necessary water amount indicated in the scheme.
- ✓ Homogenise the hydrated sample with the spatula to remove all lumps. This operation might take several minutes (from 15 to 30).
- ✓ Take the quantity necessary for the analyses (please see "LETTER: ANALYTICAL METHOD INSTRUCTIONS)

SCHEME FOR REHYDRATION

<b>SAMPLE</b>	<b>Distilled water to be added (in mL)</b>
<b>1-APG-cc</b>	29
<b>2-APG-cc</b>	29
<b>3-APG-cc</b>	60
<b>4-APG-cc</b>	60
<b>Blank</b>	48

## 4) SAMPLE PREPARATION: PRODUCT CONTAINED IN ALUMINIUM TUBES

- ✓ Squeeze the tube and roll it progressively to get all the product out;
- ✓ Put the product in a beaker of appropriate dimensions;
- ✓ Homogenise the product by gently mixing it with a spatula for a few minutes;
- ✓ Take the quantity necessary for the analyses (please see "LETTER: ANALYTICAL METHOD INSTRUCTIONS)

IN CASE OF DOUBT, OR IF YOU NEED ADDITIONAL INFORMATION, DO NOT HESITATE TO CONTACT US AT [info@proficiencyproblemsolving.com](mailto:info@proficiencyproblemsolving.com)