

Extraction is a process whereby the prepared shellfish tissue is converted into liquid containing released toxins.

The Association of Official Analytical Chemists (AOAC) is the approved method of extraction used by regulatory agencies. The Mini AOAC Extraction is a scaled-down version of the official method, based on a 10g sub sample from 100g of shellfish puree and was validated by Jellett Biotek Ltd. (Toxicon 40 [2002] 1407-1425). It was shown to be equally as effective as the full 100g official extraction method.

### Mini AOAC Extraction Method:

**1** Add 10 mL of 0.1 N HCl to shellfish puree tube.

**2** Tightly cap the tube and shake well. Repeat steps 1 & 2 for additional samples.

**3** To monitor temperature, pour 20 mL of water into a tube and put a thermometer through the hole in the top.

**4** Place temperature & sample tubes in the rack. Place the rack in a pot of boiling water.

**5** Start timing when the thermometer indicates 95° C (203° F). Let the sample(s) boil for 5 minutes.

**6** Place the rack with the sample tubes in a container of cold water and allow to cool to room temperature.

**7** Filter each boiled sample through a separate filter\*.

**8** Pour filtered extract into a clean, labelled small tube.

**9** Check the pH of the extract with a narrow range pH strip (ie: pH 1-6). The pH should be between 2.5 and 3.5, preferably about 3.0. To lower the pH, add 1.0 N HCl (or 1.0 N NaOH to raise the pH) one drop at a time and mix until the desired pH is reached.

**10** Extract is ready to use. For future use keep the extract capped tightly at 4°- 5°C 39°- 41°F. **DO NOT FREEZE**

\* We recommend the Gerson MFG Paint Strainers #010301

Equipment required to perform the mini AOAC extraction:

- Pot
- Hot plate
- Heat resistant test tube rack\*
- Centrifuge tube with hole in cap\*
- Thermometer\*
- Tin foil

- Timer
- Graduated cylinder 10ml\*
- Filters\*
- 600 ml plastic beakers\*
- Transport tubes 5ml\*
- Plastic droppers
- pH strips (2-6 range)\*

Solutions required to perform mini AOAC Extraction:

- 0.1 N HCl
- 1.0 N HCl
- 1.0 N NaOH
- Tap water

\*Available to purchase from Scotia Rapid Testing as individual components or as an extraction kit.

The Mini AOAC extraction method can be used with PSP and ASP Rapid tests.

### **Cleaning Up**

Clean all used equipment thoroughly with 5% household bleach and rinse well with tap water before re-using with another sample to avoid cross contamination.