AOAC Official Method 937.07
Fish and Marine Products

Treatment and Preparation of Sample
Procedure
First Action 1937
Final Action 1996

To prevent loss of H_2O during preparation and subsequent handling, use test portions as large as practicable. Keep ground material in container with air-tight cover. Begin all determinations as soon as practicable. If any delay occurs, chill test portions to inhibit decomposition. In general, prepare test portion of fish as it is usually prepared by consumer, by including skin and discarding bones, but subject to overall rule of edibility, e.g., inedible catfish skin is discarded; softened canned salmon bones are included; sardines are examined whole. Instructions may be modified in accordance with purpose of specific examination. Prepare test portion for analysis as follows:

(**a**) *Fresh fish.*—Clean, scale, and eviscerate fish. In case of small fish 6 in. (≤15 cm), use 5–10 fish. In case of large fish, from each of ≥3 fish cut 3 cross-sectional slices 1 in. (2.5 cm) thick, 1 slice from just back of pectoral fins, 1 slice halfway between first slice and vent, and 1 slice just back of vent. Remove bone. For intermediate-size fish, remove and discard heads, scales, tails, fins, guts, and inedible bones; fillet fish to obtain all flesh and skin from head to tail and from top of back to belly on both sides. For determination of fat and fat-soluble components, skin must be included, since many fish store large amounts of fat directly beneath skin.

Pass test portion sample rapidly through meat chopper 3 times. Remove unground material from chopper after each grinding and mix thoroughly with ground material. Meat chopper should have holes as small as practicable (1.5–3 mm [1/16–1/8 in.] diameter) and should not leak around handle end. As alternative for soft fish, high-speedblender may be used. Blend several minutes, stopping blender frequently to scrape down sides of cup.

(**b**) *Canned fish, shellfish, and other canned marine products.*—Place entire contents of can (meat and liquid) in blender and blend until homogeneous or grind 3 times through meat chopper. For large cans, drain meat 2 min on No. 8–12 sieve and collect all liquid. Determine weight of meat and volume of liquid. Recombine test portion of each in proportionate amounts. Blend test recombined portions in blender (or grind) until homogeneous.

(**c**) *Canned marine products packed in oil, sauce, broth, or water.*—Drain 2 min on No. 8 sieve. Prepare solid test portion as in (**b**). Liquid may be analyzed separately, if desired, or reincorporated with solids. H_2O is usually discarded.

(**d**) *Fish packed in salt or brine.*—Drain and discard brine and rinse off adhering salt crystals with saturated NaCl solution. Drain again 2 min and proceed as in (**a**).

(**e**) *Dried smoked or dried salt fish.*—Proceed as in (**a**).

(**f**) *Frozen fish.*—Let thaw at room temperature, and discard draining. (*1*) *Fillet.*—Use entire piece. (*2*) *Whole fish.*—Proceed as in (**a**).

(**g**) *Shellfish other than oysters, clams, and scallops.*—If test sample is received in shell, wash as in (**h**) and separate edible test portions in usual way. Prepare edible test portion for analysis as in (**a**).

(**h**) *Shell oysters, shell clams, and scallops.*—Wash shells in potable H_2O to remove all loose silt and dirt, and drain well. Shuck enough oysters or clams into clean dry container to yield ≥500 mL (1 pt) drained meats. Transfer shellfish meats to skimmer, **953.11A** (*see* 35.1.07), pick out pieces of shell, drain 2 min on skimmer, and proceed as in (**i**) or (**j**).

(**i**) *Shucked clams or scallops.*—Prepare as in (**b**).

(**j**) *Shucked oysters*.—Blend meats, including liquid, 1–2 min in high-speed blender.

(**k**) *Breaded fish, raw or cooked.*—Do not remove breading or skin. Proceed as in (**a**).

References: *JAOAC* **20,** 70(1937); **21,** 85(1938); **35,** 218(1952); **36,** 608(1953); **38,** 194(1955); **59,** 312(1976).

Revised: March 1997