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# Vacuum Packages And Retort Pouches For Smoked Seafood

Consumers can buy smoked seafood in vacuum packages or in retort pouches. The two packages may look similar, but they require different storage conditions. Vacuum packaged smoked seafoods require refrigeration. Retort pouches do not require refrigeration.

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### Vacuum Packages

### Sea Grant Depository

### Retort Pouches

Vacuum packaged smoked seafood is perishable and requires refrigeration. Smoked seafoods receive some heat during the smoking process, but not enough to destroy all bacteria. Vacuum packaging removes air from inside the package, and removing air slows the growth of most spoilage bacteria. This keeps the product fresher for a longer period of time.

Vacuum packaging materials are usually several layers of clear plastic. The different layers prevent air from getting into the package and moisture from escaping. The packaging material also provides a secure leak-proof package.

Some bacteria, including *Clostridium botulinum*, can grow when no air is present. These bacteria can survive the smoking process and can grow in vacuum packages. When *Clostridium botulinum* grows in food, it produces a deadly nerve toxin which causes the illness botulism. Cold temperatures below 38°F prevent the growth of *Clostridium botulinum*.

Vacuum packaged smoked seafood should appear fresh and moist. The package should be undamaged and "air tight." Air in the package, swelling, or loss of vacuum may indicate that spoilage bacteria are growing. Discard packages that have lost their vacuum and do not eat the food.

The label should indicate that refrigeration is necessary. The label should conspicuously contain the following information:

**"PERISHABLE KEEP REFRIGERATED"**

Store vacuum packaged smoked seafood in the refrigerator at 38°F or colder, or in the freezer. For best quality, do not store in the refrigerator longer than three weeks from the date of packaging. If in doubt about the safety of a vacuum packaged product, do not eat the food.

After opening vacuum packages, store the smoked seafood in the refrigerator.

Smoked seafood in retort pouches (flexible "cans") does not require refrigeration. Smoked seafood is vacuum packaged in the retort pouch. Then the retort pouch receives a heat process under pressure (above 230°F). This heat process destroys *Clostridium botulinum*, other illness-causing bacteria, and spoilage bacteria. Store retort pouches at room temperature with other canned foods. Refrigeration is optional.

Retort pouches consist of several layers of materials. The layers may be clear or opaque plastic, or one of the layers may be aluminum or gold-colored foil. The materials for the top and the bottom of the pouch may be the same or different. Some retort pouches are "see through" on the top and bottom, some are "see through" on top with foil on the bottom, and others have foil on the top and bottom. To avoid confusion between retort pouches and vacuum packages, seafood processors do not use retort pouches that are "see through" on the top and bottom.

Smoked seafood in retort pouches should appear fresh and moist. The pouch should be undamaged and "air tight." Reject pouches with pinholes, punctures, leakage or swelling. Retort pouch labels should indicate that you can store the unopened retort pouch at room temperature. For example, the label might say:

**REFRIGERATE AFTER OPENING**

**or**

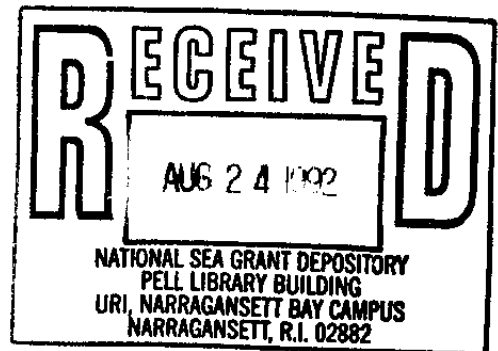
**NEEDS NO REFRIGERATION UNTIL OPENED**

Store unopened retort pouches in their original container at room temperature. Handle retort pouches carefully to avoid punctures, tears, and abrasions. Avoid stacking heavy items on top of retort pouches. For best quality, use smoked seafood in retort pouches within one year. If in doubt about the safety of a retort pouch, do not eat the food.

After opening retort pouches, store the smoked seafood in the refrigerator.



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