

# clearwater food safety fact sheet

## MARINE BIOTOXINS

*Everyone at Clearwater understands that the seafood we handle will become the centrepiece of our customers' next meal. Our commitment to the best food safety practices and our passion for continuous improvement help ensure our seafood is always a safe and healthy choice.*

*Food Safety Vision Statement, Clearwater Seafoods Limited Partnership*

Seafood is a great source of protein, low in fat, and a healthy choice for a well balanced diet. Clearwater is a leader in providing the highest quality seafood eating experience and customer care is a key pillar in our success. We feel that it is important to keep you informed about food safety and have developed a series of fact sheets for your interest. Please see our Food Safety Overview to learn more about Clearwater's commitment and best practices regarding food safety.

### This Fact Sheet Includes information on:

- PSP – Paralytic Shellfish Poisoning
- ASP – Amnesic Shellfish Poisoning
- DSP – Diarrhetic Shellfish Poisoning
- Testing procedures for marine biotoxins
- The measures that Clearwater is taking to protect our customers against marine biotoxins.

### Marine Biotoxins in the Environment

Marine biotoxins are naturally occurring compounds produced by marine algae. Under normal concentrations these compounds do not cause a problem. However, filter feeders such as clams, cockles, mussels, oysters, and scallops or crustaceans such as crabs and lobsters can consume large quantities of these algae when environmental conditions result in algae blooms, or a 'Red Tide'. High concentrations of marine biotoxins in these animals can cause illness amongst people who eat contaminated shellfish.

Illnesses that result from marine biotoxins are not related to the manner in which food is handled or prepared, but the exposure that shellfish has to microscopic organisms while living in the marine environment.

The most common illnesses that result from marine biotoxins are Paralytic Shellfish Poisoning (PSP) Amnesic Shellfish Poisoning (ASP) and Diarrhetic Shellfish Poisoning (DSP). Mild symptoms of these illnesses can include nausea, abdominal cramps, and headache but severe cases can result in muscle weakness, respiratory difficulty, temporary blindness or in rare cases, death. Although the symptoms of these diseases can be severe, the risk is very low. For example, in Nova Scotia, the annual rate of PSP cases since 1997 has been less than 1 case per 100,000 people, and only a small portion of these cases result in serious harm.<sup>1</sup>

The low instance of illnesses related to shellfish contamination is due to the rigorous protocols governing food safety as it relates to marine biotoxins.

### Government Monitoring and Enforcement

The Canadian Government has regulations governing monitoring and testing of shellfish. The Canadian Food Inspection Agency (CFIA) and the Canadian Department of Fisheries and Oceans (DFO) work together to regularly test a network of sites in shellfish harvesting areas across Canada, and take proactive measures when any contamination levels are beyond the safe limit for human consumption. When levels of toxins exceed the acceptable amount for safe consumption, CFIA informs DFO and such areas are closed, members of industry and the general public are notified, and DFO fishery officers patrol the areas to prevent the harvesting of shellfish. Clearwater works in close conjunction

<sup>1</sup>Notifiable Diseases in Nova Scotia Surveillance Report 2006

with CFIA and DFO and follows the Canadian Shellfish Sanitation Guidelines and respects all closures to protect our consumers from any harmful toxins that could contaminate our shellfish.

### Clearwater Products – A Safe Choice

Clearwater takes additional measures to protect our consumers by carrying out additional testing once unprocessed seafood is taken into our processing facilities. The measures we take are best demonstrated through descriptions of our procedures when handling bivalve mollusks and crustaceans at our processing and handling facilities.

#### Bivalve Mollusks

##### Arctic Surf Clams, Canadian Sea Scallops, & Argentine Scallops

Due to their filter-feeding nature, the meat of Arctic Surf Clams can become contaminated when these animals consume certain microorganisms in the marine environment. Guided by a Memorandum of Understanding with CFIA, Clearwater collects a sample of Arctic Surf Clam from each of our fishing vessels at the beginning of each fishing trip and additional samples every fifth day thereafter until fishing is complete. When the vessel moves to a new fishing area, the cycle re-starts. Samples are clearly identified, marked and, once landed sent for testing at CFIA laboratories. All product landed on a particular trip is held in storage and is not released to consumers until testing results are returned and the product is deemed safe for people to eat.

There is no risk of contracting PSP, DSP or ASP when consuming the abductor muscle or ‘meat’ from our Canadian and Argentine Scallops because marine biotoxins do not accumulate in this part of the animal. There is a potential risk when ‘roe-on’ scallops are consumed because it is possible for toxins to accumulate in the scallop roe. When roe-on scallops are being processed in Clearwater facilities enhanced sampling and testing, similar to that undertaken for Arctic Surf Clams is undertaken to ensure food safety.

#### Crustaceans

##### Lobster, Snow Crab, & Northern Prawn

As is the case with scallops, marine biotoxins do not contaminate the meat of lobsters, crabs and shrimp. However, contaminants can accumulate in a lobster’s digestive gland or tomalley – the light green substance found in the body of a cooked lobster.

As with other shellfish, the CFIA monitors the risk of PSP in lobster tomalley and advises the public on safe levels of consumption (see the link to a Health Canada advisory, below). As an additional precautionary measure, Clearwater’s full-time biologists test our lobster inventories and every incoming shipment for contaminants using the same PSP testing protocol as currently used by the US Food and Drug Administration. The rigorous testing carried out by Clearwater biologists is unmatched in the industry.

Clearwater’s state of the art lobster holding facility known as a dryland pound uses a sophisticated inventory control system ensuring full traceability of every shipment of lobster that is received at the plant. If test results identify any problems with shipments from a particular supplier, we can track through our inventory system and identify all other shipments from that supplier as well as the date and location the lobsters were caught.

Clearwater’s food safety program is unmatched in the industry, and you can be assured that our seafood offerings continue to be safe and of the highest and most consistent quality in the world.

#### For more information:

Health Canada advisory on lobster tomalley:

[http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/\\_2009/2009\\_45-eng.php](http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/_2009/2009_45-eng.php)

*Clearwater is recognized for consistently exceptional seafood. We take pride in our scallop, lobster, shrimp, clam, crab, masago and groundfish products because we know they comprise wholesome and nutritious food choices for our customers and their families.*

For additional information contact [foodsafety@clearwater.ca](mailto:foodsafety@clearwater.ca)



*Dedicated to Sustainable Seafood Excellence*



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