

## **Purpose**

This chapter contains three tables, which provide the following information:

- **Table #3-1**  
**Potential Vertebrate Species Related Hazards**  
contains a listing of potential hazards that are associated with specific species of vertebrate fish (fish with backbones). These hazards are referred to as species-related hazards;
- **Table #3-2**  
**Potential Invertebrate Species Related Hazards**  
contains a listing of potential hazards that are associated with specific species of invertebrate fish (fish without backbones). These hazards are also referred to as species-related hazards;

- **Table #3-3**  
**Potential Process Related Hazards**  
contains a listing of potential hazards that are associated with specific finished fishery products. These hazards are referred to as process-related hazards.

It is important to note that the tables provide listings of potential hazards. You should use the tables together with the information provided in chapters 4 through 20 in order to determine whether the hazard is significant for your particular product, and, if so, how it should be controlled.

Table #3-1

**Potential Vertebrate Species Related Hazards**

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison;  
G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

Note: This table does not provide information about methyl mercury, which may be a potential species related hazard in some species of vertebrate fish. FDA policy concerning this matter is under re-evaluation. See Chapter 10 (Methyl Mercury) for further information.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>AHOLEHOLE</b>	<i>Kuhlia spp.</i>		<b>CFP</b>			
<b>ALEWIFE or RIVER HERRING</b>	<i>Alosa pseudoharengus</i>				✓	
<b>ALFONSINO</b>	<i>Beryx spp.</i> <i>Trachichthodes spp.</i>					
<b>ALLIGATOR</b>	<i>Alligator mississippiensis</i> <i>Alligator sienensis</i>				✓ ✓	
<b>ALLIGATOR AQUACULTURED</b>	<i>Alligator mississippiensis</i> <i>Alligator sienensis</i>				✓ ✓	✓ ✓
<b>AMBERJACK or YELLOWTAIL</b>	<i>Seriola spp.</i>		<b>CFP</b>	✓		
<b>ANCHOVY</b>	<i>Anchoa spp.</i> <i>Anchoviella spp.</i> <i>Cetengraulis mysticetus</i> <i>Engraulis spp.</i> <i>Stolephorus spp.</i>		<b>ASP<sup>6</sup></b> <b>ASP<sup>6</sup></b> <b>ASP<sup>6</sup></b> <b>ASP<sup>6</sup></b> <b>ASP<sup>6</sup></b>	✓ ✓ ✓ ✓ ✓		
<b>AQUACULTURED</b>	<b>AQUATIC SPECIES</b>	✓ <sup>4,5</sup>			✓	✓
<b>ANGELFISH</b>	<i>Holacanthus spp.</i> <i>Pomacanthus spp.</i>					
<b>ARGENTINE QUEENFISH</b>	<i>Argentina elongata</i>					
<b>BARRACUDA</b>	<i>Sphyraena spp.</i>		<b>CFP</b>		✓	

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

5 – This hazard only applies if fresh fish or plankton is used as feed.

6 – This hazard only applies if the product is marketed unviscerated.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>BARRAMUNDI</b>	<i>Lates calcarifer</i>				✓	
<b>BASS</b>	<i>Ambloplites spp.</i> <i>Micropterus spp.</i> <i>Morone spp.</i> <i>Stereolepis gigas</i> <i>Synagrops bellus</i>				✓ ✓ ✓ ✓ ✓	
<b>BASS AQUACULTURED</b>	<i>Morone spp.</i> <i>Centropristis spp.</i>				✓ ✓	✓ ✓
<b>BASS, SEA</b>	<i>Acanthistius brasilius</i> <i>Centropristis spp.</i> <i>Dicentrarchus labrax</i> <i>Lateolabrax japonicus</i> <i>Paralabrax spp.</i> <i>Paranthias furcifer</i> <i>Polyprion americanus</i> <i>Polyprion oxygeneios</i> <i>Polyprion yanezi</i>	✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>BIGEYE</b>	<i>Priacanthus arenatus</i> <i>Pristigenys alta</i>					
<b>BLUEFISH</b>	<i>Pomatomus saltatrix</i>			✓	✓	
<b>BLUEGILL</b>	<i>Lepomis macrochirus</i>				✓	
<b>BLUENOSE</b>	<i>Hyperoglyphe antarctica</i>					
<b>BOMBAY DUCK</b>	<i>Harpadon nehereus</i>				✓	
<b>BONITO</b>	<i>Cybiosarda elegans</i> <i>Gymnosarda unicolor</i> <i>Orcynopsis unicolor</i> <i>Sarda spp.</i>			✓ ✓ ✓ ✓		
<b>BOWFIN and roe</b>	<i>Amia calva</i>				✓	
<b>BREAM</b>	<i>Abramis brama</i> <i>Argyrops spp.</i> <i>Sparus auratus</i>					
<b>BREAM or BOGUE</b>	<i>Boops boops</i>					

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Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>BREAM, THREADFIN</b>	<i>Nemipterus japonicus</i>					
<b>BUFFALOFISH</b>	<i>Ictiobus spp.</i>				✓	
<b>BULLHEAD</b>	<i>Ameiurus spp.</i>				✓	
<b>BURBOT</b>	<i>Lota lota</i>				✓	
<b>BUTTERFISH</b>	<i>Odax pullus</i> <i>Peprilus spp.</i> <i>Stromateus cinereus</i>				✓ ✓ ✓	
<b>CAPELIN and roe</b>	<i>Mallotus villosus</i>	✓ <sup>4</sup>				
<b>CARP</b>	<i>Cyprinus carpio</i> <i>Hypophthalmichthys molitrix</i>				✓ ✓	
<b>CARP AQUACULTURED</b>	<i>Cyprinus carpio</i> <i>Hypophthalmichthys molitrix</i>				✓ ✓	✓ ✓
<b>CATFISH</b>	<i>Ameiurus catus</i> <i>Brachyplatystoma spp.</i> <i>Ictalurus spp.</i> <i>Pinirampus pirinampu</i> <i>Platynemateichthy notatus</i> <i>Pseudoplatystoma tigrinum</i> <i>Pylodictis oliveris</i>				✓ ✓ ✓ ✓ ✓ ✓ ✓	
<b>CATFISH AQUACULTURED</b>	<i>Ictalurus spp.</i>				✓	✓
<b>CATFISH, SEA</b>	<i>Ariopsis felis</i> <i>Arius spp.</i> <i>Bagre marinus</i>					
<b>CHAR</b>	<i>Salvelinus alpinus</i>				✓	
<b>CHAR AQUACULTURED</b>	<i>Salvelinus alpinus</i>				✓	✓
<b>CHIMAERA</b>	<i>Harriota raleighana</i> <i>Hydrolagus spp.</i>					

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Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>CHUB</b>	<i>Coregonus kiyi</i>				✓	
	<i>Kyphosus spp.</i>				✓	
	<i>Semotilus atromaculatus</i>				✓	
<b>CISCO or CHUB</b>	<i>Coregonus alpenae</i>				✓	
	<i>Coregonus reighardi</i>				✓	
	<i>Coregonus zenithicus</i>				✓	
<b>CISCO or TULLIBEE</b>	<i>Coregonus artedii</i>				✓	
<b>COBIA</b>	<i>Rachycentron canadum</i>	✓ <sup>4</sup>				
<b>COD</b>	<i>Arctogadus spp.</i>	✓ <sup>4</sup>				
	<i>Boreogadus saida</i>	✓ <sup>4</sup>				
	<i>Eleginus gracilis</i>	✓ <sup>4</sup>				
	<i>Gadus spp.</i>	✓ <sup>4</sup>				
<b>COD or ALASKA COD</b>	<i>Gadus macrocephalus</i>	✓ <sup>4</sup>				
<b>COD, MORID</b>	<i>Lotella rhacina</i>	✓ <sup>4</sup>				
	<i>Mora pacifica</i>	✓ <sup>4</sup>				
	<i>Physiculus barbatus</i>	✓ <sup>4</sup>				
	<i>Pseudophycis spp.</i>	✓ <sup>4</sup>				
<b>CORVINA</b>	<i>Cilus montii</i>	✓ <sup>4</sup>				
	<i>Micropogonias opercularis</i>	✓ <sup>4</sup>				
<b>CRAPPIE</b>	<i>Pomoxis spp.</i>				✓	
<b>CROAKER</b>	<i>Argyrosomus spp.</i>				✓	
	<i>Bairdiella spp.</i>				✓	
	<i>Cheilotrema saturnum</i>				✓	
	<i>Genyonemus lineatus</i>				✓	
	<i>Micropogonias spp.</i>				✓	
	<i>Nebris microps</i>				✓	
	<i>Nibea spp.</i>				✓	
	<i>Pachypops spp.</i>				✓	
	<i>Pachyurus spp.</i>				✓	
	<i>Paralichthys spp.</i>				✓	
	<i>Plagioscion spp.</i>				✓	
	<i>Pseudolithus spp.</i>				✓	
	<i>Pterolithus spp.</i>				✓	
	<i>Roncador stearnsi</i>				✓	
	<i>Umbrina roncador</i>				✓	
<i>Odontoscion dentex</i>				✓		

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Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>CROAKER or CORVINA</b>	<i>Cynoscion spp.</i>				✓	
<b>CROAKER or SHADEFISH</b>	<i>Argyrosomus regius</i>				✓	
<b>CROAKER or YELLOWFISH</b>	<i>Pseudosciaena manchurica</i>				✓	
<b>CUSK</b>	<i>Brosme brosme</i>					
<b>CUSK-EEL</b>	<i>Lepophidium spp.</i>					
<b>CUTLASSFISH</b>	<i>Aphanopus carbo Lepidopus caudatus Trichiurus spp.</i>					
<b>DORY</b>	<i>Cyttus novaezealandiae Zenopsis spp. Zeus spp.</i>					
<b>DRIFTFISH</b>	<i>Hyperoglyphe spp.</i>					
<b>DRUM</b>	<i>Equetus punctatus Larimus spp. Pogonias cromis Stellifer spp. Totoaba macdonaldi Umbrina coroides</i>				✓ ✓ ✓ ✓ ✓ ✓	
<b>DRUM or CUBBYU</b>	<i>Equetus umbrosus</i>				✓	
<b>DRUM, FRESHWATER</b>	<i>Aplodinotus grunniens</i>				✓	
<b>DRUM or LION FISH</b>	<i>Collichthys spp.</i>				✓	
<b>DRUM or MEAGRE</b>	<i>Sciaena aquila</i>				✓	
<b>DRUM or QUEENFISH</b>	<i>Seriphus politus</i>				✓	
<b>DRUM or REDFISH</b>	<i>Sciaenops ocellatus</i>				✓	

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>DRUM or REDFISH AQUACULTURED</b>	<i>Sciaenops ocellatus</i>				✓	✓
<b>EEL</b>	<i>Anguilla spp.</i>					
<b>EEL AQUACULTURED</b>	<i>Anguilla anguilla</i> <i>Anguilla australis</i> <i>Anguilla dieffenbachii</i> <i>Anguilla japonicus</i>				✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
<b>EEL, CONGER</b>	<i>Ariosoma balearicum</i> <i>Conger spp.</i> <i>Gnathophis catalinensis</i> <i>Hildebrandia spp.</i> <i>Paraconger caudilimbatus</i>				✓ ✓ ✓ ✓ ✓	
<b>EEL, FRESHWATER</b>	<i>Anguilla rostrata</i>				✓	
<b>EEL, FRESHWATER AQUACULTURED</b>	<i>Anguilla rostrata</i>				✓	✓
<b>EEL, MORAY</b>	<i>Gymnothorax funebris</i> <i>Lycodontis javanicus</i> <i>Muraena retifera</i>		<b>CFP</b> <b>CFP</b> <b>CFP</b>			
<b>EEL, SPINY</b>	<i>Notacanthus chemnitzii</i>					
<b>EELPOUT</b>	<i>Macrozoarces americanus</i> <i>Zoarces viviparus</i>	✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>ELEPHANT FISH</b>	<i>Callorhynchus millii</i>					
<b>EMPEROR</b>	<i>Lethrinus spp.</i>					
<b>ESCOLAR or SNAKE MACKEREL</b>	<i>Lepidocybium flavobrunneum</i> <i>Ruvettus pretiosus</i>		<b>G</b> <b>G</b>	✓ ✓		

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

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Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>FLOUNDER</b>	<i>Ancylosetta dilecta</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Arnoglossus scapha</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Atheresthes evermanni</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Bothus spp.</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Chascanopsetta crumenalis</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Cleisthenes pinetorum</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Colistium spp.</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Cyclopsetta chittendeni</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Hippoglossoides robustus</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Limanda ferruginea</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Liopsetta glacialis</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Microstomus achne</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Paralichthys albigutta</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Paralichthys oblongus</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Paralichthys olivaceus</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Paralichthys patagonicus</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Paralichthys squamilentus</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Pelotretis flavilatus</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Peltorhampus novaezeelandiae</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Platichthys spp.</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Pseudorhombus spp.</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Rhombosolea spp.</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Samariscus triocellatus</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	
	<i>Scophthalmus spp.</i>	✓ <sup>4</sup>			✓ <sup>1</sup>	

1 – This hazard does not apply to offshore catch (e.g. areas not subject to shoreside contaminant discharges).

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.



Market Names	Latin Names	Hazards					
		Biological	Chemical				
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11	
<b>FLOUNDER AQUACULTURED</b>	<i>Ancylosetta dilecta</i>	✓ 4,5			✓	✓	
	<i>Arnoglossus scapha</i>	✓ 4,5			✓	✓	
	<i>Atheresthes evermanni</i>	✓ 4,5			✓	✓	
	<i>Bothus spp.</i>	✓ 4,5			✓	✓	
	<i>Chascanopsetta crumenalis</i>	✓ 4,5			✓	✓	
	<i>Cleisthenes pinetorum</i>	✓ 4,5			✓	✓	
	<i>Colistium spp.</i>	✓ 4,5			✓	✓	
	<i>Cyclosetta chittendeni</i>	✓ 4,5			✓	✓	
	<i>Hippoglossoides robustus</i>	✓ 4,5			✓	✓	
	<i>Limanda ferruginea</i>	✓ 4,5			✓	✓	
	<i>Liopsetta glacialis</i>	✓ 4,5			✓	✓	
	<i>Microstomus achne</i>	✓ 4,5			✓	✓	
	<i>Paralichthys spp.</i>	✓ 4,5			✓	✓	
	<i>Pelotretis flavilatus</i>	✓ 4,5			✓	✓	
	<i>Peltorhampus novaezeelandiae</i>	✓ 4,5			✓	✓	
	<i>Pseudorhombus spp.</i>	✓ 4,5			✓	✓	
	<i>Rhombosolea spp.</i>	✓ 4,5			✓	✓	
	<i>Samariscus triocellatus</i>	✓ 4,5			✓	✓	
	<i>Scophthalmus spp.</i>	✓ 4,5			✓	✓	
	<b>FLOUNDER or DAB</b>	<i>Pleuronectes limanda</i>	✓ 4			✓ 1	
		<i>Pleuronectes proboscidea</i>	✓ 4			✓ 1	
		<i>Pleuronectes punctatissimus</i>	✓ 4			✓ 1	
<b>FLOUNDER or FLUKE</b>	<i>Paralichthys dentatus</i>	✓ 4			✓ 1		
	<i>Paralichthys lethostigma</i>	✓ 4			✓ 1		
	<i>Paralichthys microps</i>	✓ 4			✓ 1		
	<i>Platylichthys flesus</i>	✓ 4			✓ 1		
<b>FLOUNDER, ARROWTOOTH</b>	<i>Atheresthes stomias</i>	✓ 4					

1 – This hazard does not apply to offshore catch (e.g. areas not subject to shoreside contaminant discharges).

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

5 – This hazard only applies if fresh fish or plankton is used as feed.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>FLYINGFISH and roe</b>	<i>Cypselurus spp.</i> <i>Exocoetus spp.</i> <i>Fodiator acutus</i> <i>Hirundichthys spp.</i> <i>Oxyporhamphus micropterus</i> <i>Parexocoetus brachypterus</i> <i>Prognichthys gibbifrons</i>					
<b>FROG</b>	<i>Rana spp.</i>				✓	
<b>GAR</b>	<i>Lepisosteus spp.</i>				✓	
<b>GEMFISH</b>	<i>Epinnula magistralis</i> <i>Nesiarchus nasutus</i> <i>Lepidocybium flavobrunneum</i>		<b>G</b>	✓		
<b>GEMFISH or BARRACOUTA</b>	<i>Rexea solandri</i> <i>Thyrsites atun</i>					
<b>GEMFISH or CABALLA</b>	<i>Thyrsites lepidopoides</i>					
<b>GOATFISH</b>	<i>Mulloidichthys spp.</i> <i>Mullus auratus</i> <i>Parupeneus spp.</i> <i>Pseudupeneus spp.</i> <i>Upeneichthys lineatus</i> <i>Upeneus spp.</i>		<b>CFP</b>			
<b>GRAYLING</b>	<i>Thymallus arcticus</i>				✓	
<b>GREENBONE</b>	<i>Coridodax pullus</i>					
<b>GREENLING</b>	<i>Hexagrammos spp.</i>					
<b>GRENADIER</b>	<i>Coryphaenoides spp.</i> <i>Lepidorhynchus denticulatus</i> <i>Macrourus spp.</i> <i>Nezumia bairdi</i> <i>Trachyrhynchus murray</i>					

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>GROUPER</b>	<i>Caprodon schlegelii</i>	✓ <sup>4</sup>	<b>CFP</b>			
	<i>Cephalopholis spp.</i>	✓ <sup>4</sup>	<b>CFP</b>			
	<i>Diplectrum formosum</i>	✓ <sup>4</sup>	<b>CFP</b>			
	<i>Epinephelus spp.</i>	✓ <sup>4</sup>	<b>CFP</b>			
	<i>Mycteroperca spp.</i>	✓ <sup>4</sup>	<b>CFP</b>			
<b>GROUPER or GAG</b>	<i>Mycteroperca microlepis</i>	✓ <sup>4</sup>	<b>CFP</b>			
<b>GROUPER or HIND</b>	<i>Epinephelus guttatus</i>	✓ <sup>4</sup>	<b>CFP</b>			
<b>GROUPER or JEWFISH</b>	<i>Epinephelus itajara</i>	✓ <sup>4</sup>	<b>CFP</b>			
<b>GRUNION</b>	<i>Leuresthes tenuis</i>					
<b>GRUNT</b>	<i>Anisotremus interruptus</i>					
	<i>Conodon nobilis</i>					
	<i>Haemulon spp.</i>					
	<i>Orthopristis chrysoptera</i>					
	<i>Pomadasys croco</i>					
	<i>Anisotremus taeniatus</i>					
<b>GRUNT or CATALINA</b>	<i>Anisotremus taeniatus</i>					
<b>GRUNT or MARGATE</b>	<i>Haemulon album</i>					
	<i>Haemulon surinamensis</i>					
<b>GRUNT or SWEETLIPS</b>	<i>Plectorhynchus spp.</i>					
<b>HADDOCK</b>	<i>Melanogrammus aeglefinus</i>					
<b>HAKE</b>	<i>Urophycis spp.</i>					
<b>HALIBUT</b>	<i>Hippoglossus spp.</i>	✓ <sup>4</sup>				
<b>HALIBUT AQUACULTURED</b>	<i>Hippoglossus spp.</i>	✓ <sup>4,5</sup>			✓	✓
<b>HALIBUT or CALIFORNIA HALIBUT</b>	<i>Paralichthys californicus</i>	✓ <sup>4</sup>				

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

5 – This hazard only applies if fresh fish or plankton is used as feed.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>HAMLET, MUTTON</b>	<i>Epinephelus afer</i>					
<b>HERRING</b>	<i>Etrumeus teres</i>	✓ <sup>4</sup>		✓	✓	
	<i>Harengula thrissina</i>	✓ <sup>4</sup>		✓	✓	
	<i>Ilisha spp.</i>	✓ <sup>4</sup>		✓	✓	
	<i>Opisthopterus tardoore</i>	✓ <sup>4</sup>		✓	✓	
	<i>Pellona ditchela</i>	✓ <sup>4</sup>		✓	✓	
<b>HERRING or RIVER HERRING</b>	<i>Alosa spp.</i>				✓	
<b>HERRING or SEA or SILD and roe</b>	<i>Clupea spp.</i>	✓ <sup>4</sup>		✓		
<b>HERRING, THREAD</b>	<i>Opisthonema spp.</i>			✓	✓	
<b>HIND</b>	<i>Epinephelus guttatus</i>	✓ <sup>4</sup>	<b>CFP</b>			
	<i>Epinephelus adscensionis</i>	✓ <sup>4</sup>	<b>CFP</b>			
	<i>Epinephelus drummondhayi</i>	✓ <sup>4</sup>	<b>CFP</b>			
	<i>Lachnolaimus maximus</i>	✓ <sup>4</sup>	<b>CFP</b>			
<b>JACK</b>	<i>Caranx spp.</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
	<i>Oligoplites saurus</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
	<i>Selene spp.</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
	<i>Seriola rivoliana</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
	<i>Urapsis secunda</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>JACK or BLUE RUNNER</b>	<i>Caranx crysos</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>JACK or CREVALLE</b>	<i>Alectis indica</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>JACK or RAINBOW RUNNER</b>	<i>Elagatis bipinnulata</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>JACK or ROOSTERFISH</b>	<i>Nematistius pectoralis</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>JOBFISH</b>	<i>Aphareus spp.</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
	<i>Aprion virescens</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
	<i>Pristipomoides spp.</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>KAHAWAI</b>	<i>Arripis spp.</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>KINGFISH</b>	<i>Menticirrhus spp.</i>					
<b>KINGKLIP</b>	<i>Genypterus spp.</i>					
<b>LADYFISH</b>	<i>Elops spp.</i>					
<b>LING</b>	<i>Molva spp.</i>					
<b>LING, MEDITERRANEAN</b>	<i>Molva macrophthalmus</i>					
<b>LINGCOD</b>	<i>Ophiodon elongatus</i>					
<b>LIZARDFISH</b>	<i>Synodus spp.</i>					
<b>LUMPFISH roe</b>	<i>Cyclopterus lumpus</i>					
<b>MACKEREL</b>	<i>Gasterochisma melampus</i>	✓ <sup>4</sup>		✓		
	<i>Grammatorcynus spp.</i>	✓ <sup>4</sup>		✓		
	<i>Rastrelliger kanagurta</i>	✓ <sup>4</sup>		✓		
	<i>Scomber scombrus</i>	✓ <sup>4</sup>	<b>PSP<sup>6</sup></b>	✓		
<b>MACKEREL, ATKA</b>	<i>Pleurogrammus monopterygius</i>	✓ <sup>4</sup>				
<b>MACKEREL, CHUB</b>	<i>Scomber spp.</i>	✓ <sup>4</sup>		✓		
<b>MACKEREL, JACK</b>	<i>Trachurus spp.</i>	✓ <sup>4</sup>		✓		
<b>MACKEREL, SPANISH</b>	<i>Scomberomorus spp.</i>	✓ <sup>4</sup>		✓		
	<i>Scomberomorus cavalla</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>MAHI-MAHI</b>	<i>Coryphaena spp.</i>			✓		
<b>MAHI-MAHI AQUACULTURED</b>	<i>Coryphaena spp.</i>			✓	✓	✓
<b>MARLIN</b>	<i>Makaira spp.</i>			✓		
	<i>Tetrapturus spp.</i>			✓		
<b>MENHADEN</b>	<i>Brevoortia spp.</i>					
	<i>Ethmidium maculatum</i>					
<b>MILKFISH</b>	<i>Chanos chanos</i>				✓	

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

6 – This hazard only applies if the product is marketed unviscerated.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>MILKFISH AQUACULTURED</b>	<i>Chanos chanos</i>				✓	✓
<b>MONKFISH</b>	<i>Lophius spp.</i>	✓ <sup>4</sup>				
<b>MORWONG</b>	<i>Aplodactylus meandratus Cheilodactylus spp. Nemadactylus spp.</i>					
<b>MULLET</b>	<i>Agonostomus monticola Aldrichetta forsteri Crenimugil crenilabis Mugil spp. Mullus spp. Neomyxus chaptalii Xenomugil thoburni</i>	✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup>			✓ ✓ ✓ ✓ ✓ ✓ ✓	
<b>MUSKELLUNGE</b>	<i>Esox masquinongy</i>				✓	
<b>OPAH</b>	<i>Lampris guttatus</i>					
<b>OPALEYE</b>	<i>Girella nigricans</i>					
<b>OREO DORY</b>	<i>Allocyttus niger Pseudocyttus maculatus</i>					
<b>OSCAR</b>	<i>Astronotus ocellatus</i>				✓	
<b>OSCAR AQUACULTURED</b>	<i>Astronotus ocellatus</i>				✓	✓
<b>PACU</b>	<i>Myleus pacu</i>					
<b>PADDLEFISH and roe</b>	<i>Polyodon spp.</i>				✓	
<b>PADDLEFISH and roe AQUACULTURED</b>	<i>Polyodon spp.</i>				✓	✓
<b>PARROTFISH</b>	<i>Scarus spp.</i>		<b>CFP<sup>2</sup></b>			
<b>PATAGONIAN TOOTHFISH or CHILEAN SEA BASS</b>	<i>Dissotichus eleginoides</i>	✓ <sup>4</sup>				

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

2 – Indicates that the ciguatera hazard is only associated with this species in the tropical Pacific Ocean.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>PERCH</b>	<i>Hermosilla azurea</i> <i>Perca fluviatilis</i>				✓ ✓	
<b>PERCH, LAKE or YELLOW</b>	<i>Perca flavescens</i>				✓	
<b>PERCH, NILE</b>	<i>Lates niloticus</i>				✓	
<b>PERCH, NILE AQUACULTURED</b>	<i>Lates niloticus</i>				✓	✓
<b>PERCH, OCEAN</b>	<i>Sebastes spp.</i>	✓ <sup>4</sup>				
<b>PERCH, PILE</b>	<i>Rhacochilus vacca</i>				✓	
<b>PERCH, SILVER</b>	<i>Bairdiella chrysoura</i>				✓	
<b>PERCH, WHITE</b>	<i>Morone americana</i>				✓	
<b>PICAREL</b>	<i>Spicara maena</i>				✓	
<b>PICKEREL</b>	<i>Esox spp.</i>				✓	
<b>PIKE</b>	<i>Esox lucius</i>				✓	
<b>PILCHARD or SARDINE</b>	<i>Sardina pilchardus</i> <i>Sardinops spp.</i>			✓ ✓		
<b>PLAICE</b>	<i>Hippoglossoides platessoides</i> <i>Pleuronectes platessa</i> <i>Pleuronectes quadrituberculatus</i>	✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>POLLOCK</b>	<i>Pollachius pollachius</i> <i>Pollachius virens</i>	✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>POLLOCK or ALASKA POLLOCK</b>	<i>Theragra chalcogramma</i>	✓ <sup>4</sup>				
<b>POMFRET</b>	<i>Brama spp.</i> <i>Taracetes rubescens</i>					
<b>POMPANO</b>	<i>Alectis ciliaris</i> <i>Parastromateus niger</i> <i>Trachinotus spp.</i>		<b>CFP</b>			

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>POMPANO or PERMIT</b>	<i>Trachinotus kennedyi</i> <i>Trachinotus falcatus</i>					
<b>POMPANO or POMPANITO</b>	<i>Trachinotus rhodopus</i>					
<b>PORGY</b>	<i>Calamus spp.</i> <i>Chrysophrys auratus</i> <i>Dentex spp.</i> <i>Diplodus spp.</i> <i>Lagodon rhomboides</i> <i>Pagrus spp.</i> <i>Pterogymnus lanianus</i> <i>Stenotomus caprinus</i>					
<b>PORGY or SCUP</b>	<i>Stenotomus chrysops</i>					
<b>PUFFER</b>	<i>Arothron spp.</i> <i>Fugu spp.</i> <i>Lagocephalus spp.</i> <i>Sphoeroides maculatus</i>		<b>T</b> <b>T</b>			
<b>RACEHORSE</b>	<i>Congiopodus leucopaecilus</i>					
<b>ROCKFISH</b>	<i>Helicolenus papillosus</i> <i>Scorpaena cardinalis</i> <i>Sebastes spp.</i>	✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>ROCKLING</b>	<i>Ciliata spp.</i> <i>Enchelyopus cimbrius</i>					
<b>ROSEFISH</b>	<i>Helicolenus dactylopterus</i>					
<b>ROUGHY</b>	<i>Paratrachichthys trailli</i>					
<b>ROUGHY, ORANGE</b>	<i>Hoplostethus atlanticus</i>					
<b>ROUGHY, SILVER</b>	<i>Hoplostethus mediterraneus</i>					
<b>SABLEFISH</b>	<i>Anoplopoma fimbria</i>	✓ <sup>4</sup>				
<b>SALMON and roe, AQUACULTURED</b>	<i>Oncorhynchus spp.</i> <i>Salmo salar</i>	✓ <sup>4,5</sup> ✓ <sup>4,5</sup>			✓ ✓	✓ ✓

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

5 – This hazard only applies if fresh fish or plankton is used as feed.



Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>SALMON and roe (WILD) (FRESHWATER)</b>	<i>Oncorhynchus spp.</i> <i>Salmo salar</i>				✓ ✓	✓ ✓
<b>SALMON and roe, (WILD) (OCEAN)</b>	<i>Oncorhynchus spp.</i> <i>Salmo salar</i>	✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>SANDDAB</b>	<i>Citharichthys sordidus</i>				✓	
<b>SANDPERCH</b>	<i>Mugiloides chilensis</i> <i>Paraperca spp.</i>					
<b>SARDINE</b>	<i>Harengula spp.</i> <i>Sardinella spp.</i>			✓ ✓		
<b>SAUGER</b>	<i>Stizostedion canadense</i>					
<b>SAURY</b>	<i>Cololabis saira</i> <i>Scomberesox saurus</i>			✓ ✓		
<b>SCAD</b>	<i>Caranx mate</i> <i>Decapterus spp.</i> <i>Selar</i> <i>crumenophthalmus</i> <i>Trachurus spp.</i>	✓ <sup>4</sup> ✓ <sup>4</sup>  ✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>SCULPIN</b>	<i>Hemitripterus</i> <i>americanus</i> <i>Myoxocephalus</i> <i>polyacanthocephalus</i> <i>Scorpaenichthys</i> <i>marmoratus</i>					
<b>SEA BREAM</b>	<i>Archosargus</i> <i>rhomboidalis</i> <i>Chrysophrys unicolor</i> <i>Pagellus spp.</i>					
<b>SEAROBIN</b>	<i>Chelidonichthys spp.</i> <i>Peristedion miniatum</i> <i>Prionotus carolinus</i> <i>Pterygotrigla picta</i>					
<b>SEATROUT</b>	<i>Cynoscion spp.</i>	✓ <sup>4</sup>				
<b>SHAD and roe</b>	<i>Alosa spp.</i>			✓	✓	

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>SHAD, GIZZARD</b>	<i>Dorosoma spp.</i> <i>Nematalosa vlaminghi</i>			✓ ✓	✓ ✓	
<b>SHARK</b>	<i>Carcharhinus spp.</i> <i>Cetorhinus maximus</i> <i>Galeocerdo cuviere</i> <i>Galeorhinus spp.</i> <i>Hexanchus griseus</i> <i>Lamna ditropis</i> <i>Negaprion brevirostris</i> <i>Notorynchus cepedianus</i> <i>Prionace glauca</i> <i>Sphyrna spp.</i> <i>Triaenodon obesus</i> <i>Triakis semifasciata</i>					
<b>SHARK or PORBEAGLE</b>	<i>Lamna nasus</i>					
<b>SHARK or SMOOTHOUND</b>	<i>Mustelus spp.</i>					
<b>SHARK, ANGEL</b>	<i>Squatina spp.</i>					
<b>SHARK, DOGFISH or CAPE SHARK</b>	<i>Centrophorus spp.</i> <i>Mustelus spp.</i> <i>Scyliorhinus spp.</i> <i>Squalus spp.</i>					
<b>SHARK, MAKO</b>	<i>Isurus spp.</i>					
<b>SHARK, THRESHER</b>	<i>Alopias spp.</i>					
<b>SHEEPHEAD</b>	<i>Semicossyphus pulcher</i> <i>Archosargus probatocephalus</i>				✓ ✓	
<b>SHINER</b>	<i>Notropis spp.</i>				✓	
<b>SILVERSIDE</b>	<i>Atherinops spp.</i> <i>Basilichthys australis</i> <i>Menidia menidia</i>				✓ ✓ ✓	
<b>SKATE</b>	<i>Bathyraja spp.</i> <i>Raja spp.</i>				✓ ✓	

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>SKILLFISH</b>	<i>Erilepis zonifer</i>					
<b>SMELT</b>	<i>Allosmerus elongatus</i>				✓	
	<i>Argentina spp.</i>				✓	
	<i>Hypomesus spp.</i>				✓	
	<i>Osmerus spp.</i>				✓	
	<i>Plecoglossus altivelis</i>				✓	
	<i>Retropinna retropinna</i>				✓	
	<i>Spirinchus spp.</i>				✓	
	<i>Thaleichthys pacificus</i>				✓	
<b>SNAKEHEAD</b>	<i>Channa striata</i>					
	<i>Ophicephalus obscurus</i>					
<b>SNAPPER</b>	<i>Apsilus dentatus</i>					
	<i>Etelis spp.</i>		<b>CFP</b>			
	<i>Lutjanus spp.</i>		<b>CFP</b>			
	<i>Macolor spp.</i>					
	<i>Ocyurus chrysurus</i>					
	<i>Pristipomoides spp.</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
	<i>Rhomboplites aurorubens</i>					
	<i>Symphoricichthys spilurus</i>					
<b>SNOOK</b>	<i>Centropomus spp.</i>				✓	
<b>SOLE or FLOUNDER</b>	<i>Aseraggodes spp.</i>	✓ <sup>4</sup>				
	<i>Austroglossus spp.</i>	✓ <sup>4</sup>				
	<i>Buglossidium luteum</i>	✓ <sup>4</sup>				
	<i>Clidoderma asperrimum</i>	✓ <sup>4</sup>				
	<i>Embassichthys bathybius</i>	✓ <sup>4</sup>				
	<i>Eopsetta exilis</i>	✓ <sup>4</sup>				
	<i>Eopsetta jordani</i>	✓ <sup>4</sup>				
	<i>Errex zachirus</i>	✓ <sup>4</sup>				
	<i>Glyptocephalus spp.</i>	✓ <sup>4</sup>				
	<i>Gymnachirus melas</i>	✓ <sup>4</sup>				
	<i>Hippoglossina spp.</i>	✓ <sup>4</sup>				
	<i>Lepidopsetta bilineata</i>	✓ <sup>4</sup>				
	<i>Microchirus spp.</i>	✓ <sup>4</sup>				
	<i>Microstomus kitt</i>	✓ <sup>4</sup>				
	<i>Microstomus pacificus</i>	✓ <sup>4</sup>				
	<i>Pleuronectes americanus</i>	✓ <sup>4</sup>				
	<i>Pleuronectes vetulus</i>	✓ <sup>4</sup>				
	<i>Psettichthys melanostictus</i>	✓ <sup>4</sup>				
	<i>Solea vulgaris</i>	✓ <sup>4</sup>				
	<i>Synaptura orientalis</i>	✓ <sup>4</sup>				
	<i>Trinectes spp.</i>	✓ <sup>4</sup>				
	<i>Xystreuryx liolepis</i>	✓ <sup>4</sup>				

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>SOLE or FLOUNDER AQUACULTURED</b>	<i>Aseraggodes spp.</i>	✓ 4,5			✓	✓
	<i>Austroglossus spp.</i>	✓ 4,5			✓	✓
	<i>Buglossidium luteum</i>	✓ 4,5			✓	✓
	<i>Clidoderma asperrimum</i>	✓ 4,5			✓	✓
	<i>Embassichthys bathybius</i>	✓ 4,5			✓	✓
	<i>Eopsetta exilis</i>	✓ 4,5			✓	✓
	<i>Eopsetta jordani</i>	✓ 4,5			✓	✓
	<i>Errex zachirus</i>	✓ 4,5			✓	✓
	<i>Glyptocephalus spp.</i>	✓ 4,5			✓	✓
	<i>Gymnachirus melas</i>	✓ 4,5			✓	✓
	<i>Hippoglossina spp.</i>	✓ 4,5			✓	✓
	<i>Lepidopsetta bilineata</i>	✓ 4,5			✓	✓
	<i>Microchirus spp.</i>	✓ 4,5			✓	✓
	<i>Pleuronectes americanus</i>	✓ 4,5			✓	✓
	<i>Pleuronectes vetulus</i>	✓ 4,5			✓	✓
	<i>Psettichthys melanostictus</i>	✓ 4,5			✓	✓
	<i>Solea vulgaris</i>	✓ 4,5			✓	✓
	<i>Synaptura orientalis</i>	✓ 4,5			✓	✓
	<i>Trinectes spp.</i>	✓ 4,5			✓	✓
	<i>Xystreurus liolepis</i>	✓ 4,5			✓	✓
	<b>SPADEFISH</b>	<i>Chaetodipterus spp.</i>				
<b>SPEARFISH</b>	<i>Tetrapturus spp.</i>					
<b>SPOT</b>	<i>Leiostomus xanthurus</i>				✓	
<b>SPRAT or BRISTLING</b>	<i>Sprattus spp.</i>	✓ 4		✓		
<b>SQUIRRELFISH</b>	<i>Holocentrus spp.</i>		<b>CFP</b>			
	<i>Myripristis spp.</i>					
	<i>Sargocentron spp.</i>					
<b>STURGEON and roe</b>	<i>Acipenser spp.</i>				✓	
	<i>Huso huso</i>				✓	
	<i>Pseudoscaphirhynchus spp.</i>				✓	
	<i>Scaphirhynchus spp.</i>				✓	
<b>STURGEON and roe AQUACULTURED</b>	<i>Acipenser spp.</i>				✓	✓
	<i>Huso huso</i>				✓	✓
	<i>Pseudoscaphirhynchus spp.</i>				✓	✓
	<i>Scaphirhynchus spp.</i>				✓	✓

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

5 – This hazard only applies if fresh fish or plankton is used as feed.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>SUCKER</b>	<i>Carpiodes spp.</i> <i>Catostomus commersoni</i> <i>Cycleptus elongatus</i>				✓ ✓ ✓	
<b>SUCKER or REDHORSE</b>	<i>Moxostoma macrolepidotum</i>				✓	
<b>SUNFISH (not <i>Mola mola</i>)</b>	<i>Archoplites interruptus</i> <i>Lepomis spp.</i>				✓ ✓	
<b>SURFPERCH</b>	<i>Amphistichus spp.</i> <i>Cymatogaster aggregata</i> <i>Embiotoca spp.</i> <i>Hyperprosopon argenteum</i> <i>Rhacochilus toxotes</i>				✓ ✓ ✓ ✓ ✓	
<b>SWORDFISH</b>	<i>Xiphias gladius</i>					
<b>TANG</b>	<i>Acanthurus spp.</i> <i>Ctenochaetus spp.</i> <i>Tenthis spp.</i> <i>Zebrasoma spp.</i>		<b>CFP<sup>3</sup></b> <b>CFP<sup>3</sup></b> <b>CFP<sup>3</sup></b> <b>CFP<sup>3</sup></b>			
<b>TARPON</b>	<i>Megalops atlanticus</i>				✓	
<b>TAUTOG</b>	<i>Tautoga onitis</i>				✓	
<b>THORNYHEAD</b>	<i>Sebastobus spp.</i>	✓ <sup>4</sup>			✓	
<b>THREADFIN</b>	<i>Eleutheronema tetradactylum</i> <i>Galeoides decadactylus</i> <i>Polydactylus spp.</i>					
<b>TILAPIA</b>	<i>Tilapia spp.</i>				✓	
<b>TILAPIA AQUACULTURED</b>	<i>Tilapia spp.</i>				✓	✓
<b>TILEFISH</b>	<i>Caulolatilus spp.</i> <i>Lopholatilus chamaeleonticeps</i> <i>Malacanthus plumieri</i> <i>Prolatilus jugularis</i>					
<b>TOMCOD</b>	<i>Microgadus spp.</i>	✓ <sup>4</sup>				

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

3 – Indicates that the ciguatera hazard is only associated with this species in the tropical Pacific Ocean.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>TONGUESOLE</b>	<i>Cynoglossus spp.</i>	✓ <sup>4</sup>				
<b>TREVALLY</b>	<i>Caranx sexfasciatus</i>	✓ <sup>4</sup>	<b>CFP</b>	✓		
<b>TRIGGERFISH</b>	<i>Balistes spp.</i> <i>Canthidermis sufflamen</i> <i>Melichthys niger</i> <i>Navodon spp.</i>		<b>CFP</b> <b>CFP</b> <b>CFP</b>			
<b>TRIPLETAIL</b>	<i>Datnioides quadrifasciatus</i> <i>Lobotes spp.</i>					
<b>TROUT (AQUACULTURE)</b>	<i>Oncorhynchus aguabonita</i> <i>Oncorhynchus clarki</i> <i>Oncorhynchus gilae</i> <i>Oncorhynchus mykiss</i> <i>Salmo trutta</i> <i>Salvelinus fontinalis</i> <i>Salvelinus malma</i> <i>Salvelinus namaycush</i> <i>Stenodus leucichthys</i>				✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
<b>TROUT, RAINBOW or STEELHEAD</b>	<i>Oncorhynchus mykiss</i>	✓ <sup>4</sup>				
<b>TRUMPETER</b>	<i>Latridopsis spp.</i> <i>Latris lineata</i>				✓ ✓	
<b>TUNA (small)</b>	<i>Allothunnus fallai</i> <i>Auxis spp.</i> <i>Euthynnus spp.</i> <i>Katsuwonus pelamis</i> <i>Thunnus tonggol</i>	✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup>		✓ ✓ ✓ ✓ ✓		
<b>TUNA (large)</b>	<i>Thunnus alalunga</i> <i>Thunnus albacares</i> <i>Thunnus atlanticus</i> <i>Thunnus maccoyii</i> <i>Thunnus obesus</i> <i>Thunnus thynnus</i>			✓ ✓ ✓ ✓ ✓ ✓		

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Market Names	Latin Names	Hazards				
		Biological	Chemical			
		Parasites CHP 5	Natural Toxins CHP 6	Histamine CHP 7	Chemical CHP 9	Drugs CHP 11
<b>TURBOT</b>	<i>Hypsopsetta guttulata</i> <i>Pleuronichthys spp.</i> <i>Psettodes spp.</i> <i>Reinhardtius hippoglossoides</i> <i>Scophthalmus maximum</i>	✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup> ✓ <sup>4</sup>				
<b>WAHOO</b>	<i>Acanthocybium solandri</i>			✓		
<b>WALLEYE</b>	<i>Stizostedion spp.</i>				✓	
<b>WAREHOU</b>	<i>Seriola spp.</i>					
<b>WEAKFISH</b>	<i>Cynoscion spp.</i> <i>Macrodon ancylodon</i>					
<b>WHITEFISH</b>	<i>Coregonus spp.</i> <i>Prosopium cylindraceum</i>				✓ ✓	
<b>WHITING</b>	<i>Merluccius gayi</i> <i>Merluccius hubbsi</i> <i>Merluccius merluccius</i>					
<b>WHITING, BLUE</b>	<i>Micromesistius spp.</i>					
<b>WHITING or PACIFIC WHITING</b>	<i>Merluccius productus</i>					
<b>WHITING, NEW ZEALAND</b>	<i>Macruronus novaezelandiae</i>					
<b>WOLFFISH</b>	<i>Anarhichas spp.</i>	✓ <sup>4</sup>				
<b>YELLOWTAIL or AMBERJACK</b>	<i>Seriola lalandei</i>		<b>CFP</b>	✓		
<b>ZANDER</b>	<i>Stizostedion lucioperca</i>				✓	

Note: ASP = amnesic shellfish poison; CFP = ciguatera fish poison; G = gempylotoxin; PSP = paralytic fish poison; T = tetrodotoxin.

4 – This hazard does not apply if the product is intended to be cooked by the consumer or end-user.

Table #3-2

**Potential Invertebrate Species Related Hazards**

Market Names	Latin Names	Hazards				
		Biological		Chemical		
		Pathogens CHP 4	Parasites CHP 5	Natural Toxins CHP 6	Chemical CHP 9	Drugs CHP 11
<b>ABALONE</b>	<i>Haliotis spp.</i> <i>Marinauris roei</i> <i>Notohaliotis ruber</i> <i>Schismotis laevigata</i>				✓ ✓ ✓ ✓	
<b>AQUACULTURED INVERTEBRATES</b>	ALL SPECIES	✓		✓	✓	✓
<b>ARKSHELL</b>	<i>Anadara subcrenata</i> <i>Arca spp.</i>	✓ ✓		✓ ✓	✓ ✓	
<b>CLAM, BENTNOSE</b>	<i>Macoma nasuta</i>	✓		✓	✓	
<b>CLAM BUTTER</b>	<i>Saxidomus spp.</i>	✓		✓	✓	
<b>CLAM, CALICO</b>	<i>Macrocallista maculata</i>	✓		✓	✓	
<b>CLAM, GEODUCK</b>	<i>Panopea abrupta</i> <i>Panopea bitruncata</i>	✓ ✓		✓ ✓	✓ ✓	
<b>CLAM, HARD</b>	<i>Arctica islandica</i> <i>Meretricinae spp.</i> <i>Meretrix spp.</i> <i>Venus mortoni</i>	✓ ✓ ✓ ✓		✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	
<b>CLAM, HARDSHELL or QUAHOG</b>	<i>Protothaca thaca</i> <i>Mercenaria spp.</i>	✓ ✓		✓ ✓	✓ ✓	
<b>CLAM, LITTLENECK</b>	<i>Protothaca staminea</i> <i>Protothaca tenerrima</i> <i>Tapes aureus</i> <i>Tapes decussatus</i> <i>Tapes semidecussata</i> <i>Tapes variegata</i> <i>Tapes virginea</i> <i>Venerupis philippinarum</i>	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	
<b>CLAM, MARSH</b>	<i>Corbicula japonica</i>	✓		✓	✓	
<b>CLAM, PISMO</b>	<i>Tivela stultorum</i>	✓		✓	✓	



Market Names	Latin Names	Hazards				
		Biological		Chemical		
		Pathogens CHP 4	Parasites CHP 5	Natural Toxins CHP 6	Chemical CHP 9	Drugs CHP 11
<b>CLAM, RAZOR</b>	<i>Ensis spp.</i>	✓		✓	✓	
	<i>Siliqua spp.</i>	✓		✓	✓	
	<i>Solen spp.</i>	✓		✓	✓	
	<i>Tagelus spp.</i>	✓		✓	✓	
<b>CLAM, SANGUIN</b>	<i>Sanguinolaria spp.</i>	✓		✓	✓	
<b>CLAM, SOFTSHELL</b>	<i>Mya arenaria</i>	✓		✓	✓	
<b>CLAM, SURF SURFCLAM</b>	<i>Mactra spp.</i>	✓		✓	✓	
	<i>Mactrellona alata</i>	✓		✓	✓	
	<i>Mactromeris spp.</i>	✓		✓	✓	
	<i>Mactrotomas spp.</i>	✓		✓	✓	
	<i>Simomactra spp.</i>	✓		✓	✓	
	<i>Spisula spp.</i>	✓		✓	✓	
	<i>Tresus spp.</i>	✓		✓	✓	
<b>CLAM, SURF AQUACULTURED</b>	<i>Mactra schalinensis</i>	✓		✓	✓	
<b>CLAM, VENUS</b>	<i>Chione spp.</i>	✓		✓	✓	
	<i>Macrocallista nimbosa</i>	✓		✓	✓	
<b>CLAM, WEDGE</b>	<i>Paphies spp.</i>	✓		✓	✓	
<b>COCKLE</b>	<i>Cardium spp.</i>	✓		✓	✓	
	<i>Clinocardium spp.</i>	✓		✓	✓	
	<i>Dinocardium robustum</i>	✓		✓	✓	
	<i>Serripes groenlandicus</i>	✓		✓	✓	
<b>CONCH</b>	<i>Strombus spp.</i>					
<b>COQUINA</b>	<i>Donax spp.</i>	✓		✓	✓	
<b>COQUINA, FALSE</b>	<i>Iphigenia brasiliana</i>	✓		✓	✓	
<b>CRAB, BLUE</b>	<i>Callinectes sapidus</i>				✓	
<b>CRAB, BROWN</b>	<i>Geryon fenneri</i>					
<b>CRAB, BROWN KING</b>	<i>Lithodes aequispina</i>					
<b>CRAB, CENTOLLA</b>	<i>Lithodes antarcticus</i>					
	<i>Lithodes murrayi</i>					
<b>CRAB, DEEPSEA</b>	<i>Paralomis granulosa</i>					

Market Names	Latin Names	Hazards				
		Biological		Chemical		
		Pathogens CHP 4	Parasites CHP 5	Natural Toxins CHP 6	Chemical CHP 9	Drugs CHP 11
<b>CRAB, DUNGENESS</b>	<i>Cancer magister</i>			✓ <sup>2</sup>	✓	
<b>CRAB, JONAH</b>	<i>Cancer borealis</i>			✓ <sup>2</sup>		
<b>CRAB, KING</b>	<i>Paralithodes camtschaticus</i> <i>Paralithodes platypus</i>					
<b>CRAB, KING or HANASAKI</b>	<i>Paralithodes brevipes</i>					
<b>CRAB, KOREAN or KEGANI</b>	<i>Erimacrus isenbeckii</i>					
<b>CRAB, LITHODES</b>	<i>Neolithodes brodiei</i>					
<b>CRAB, RED</b>	<i>Geryon quinquedens</i>					
<b>CRAB, RED ROCK</b>	<i>Cancer productus</i>			✓ <sup>2</sup>		
<b>CRAB, ROCK</b>	<i>Cancer irroratus</i> <i>Cancer pagurus</i>					
<b>CRAB, SNOW</b>	<i>Chionoecetes angulatus</i> <i>Chionoecetes bairdi</i> <i>Chionoecetes opilio</i> <i>Chionoecetes tanneri</i>					
<b>CRAB, SPIDER</b>	<i>Jacquinotia edwardsii</i> <i>Maja squinado</i>					
<b>CRAB, STONE</b>	<i>Menippi spp.</i>					
<b>CRAB, SWIMMING</b>	<i>Callinectes arcuatus</i> <i>Callinectes toxotes</i> <i>Portunus spp.</i>				✓ ✓ ✓	
<b>CRAWFISH or CRAYFISH</b>	<i>Cambarus spp.</i> <i>Cherax spp.</i> <i>Euastacus armatus</i> <i>Pacifastacus spp.</i> <i>Paranephrops spp.</i> <i>Procambarus spp.</i> <i>Astacus spp.</i>				✓ ✓ ✓ ✓ ✓ ✓ ✓	

2 – This hazard only applies if the product is marketed unviscerated.

Market Names	Latin Names	Hazards				
		Biological		Chemical		
		Pathogens CHP 4	Parasites CHP 5	Natural Toxins CHP 6	Chemical CHP 9	Drugs CHP 11
<b>CRAWFISH or CRAYFISH AQUACULTURED</b>	<i>Cambarus spp.</i> <i>Cherax spp.</i> <i>Euastacus armatus</i> <i>Pacifastacus spp.</i> <i>Paranephrops spp.</i> <i>Procambarus spp.</i> <i>Astacus spp.</i>				✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓
<b>CUTTLEFISH</b>	<i>Sepia spp.</i>					
<b>JELLYFISH</b>	<i>Rhopilema spp.</i>					
<b>KRILL</b>	<i>Euphausia spp.</i> <i>Meganyctiphanes norvegica</i> <i>Thysandoessa inermis</i>				✓	
<b>LANGOSTINO</b>	<i>Cervimunida johni</i> <i>Munida gregaria</i> <i>Pleuroncodes monodon</i>					
<b>LIMPET</b>	<i>Acmaea testitudinalis</i> <i>Cellana denticulata</i> <i>Diodora aspera</i> <i>Fissurella maxima</i> <i>Lottia gigantea</i> <i>Patella caerulea</i>					
<b>LOBSTER</b>	<i>Homarus spp.</i>			✓ <sup>2</sup>		✓ <sup>7</sup>
<b>LOBSTER, NORWAY</b>	<i>Nephrops norvegicus</i>					
<b>LOBSTER, ROCK</b>	<i>Jasus spp.</i>					
<b>LOBSTER, ROCK or SPINY</b>	<i>Palinurus spp.</i> <i>Panulirus spp.</i>					
<b>LOBSTER, SLIPPER</b>	<i>Ibacus ciliatus</i> <i>Scyllarides spp.</i> <i>Thenus orientalis</i>					
<b>LOBSTERETTE</b>	<i>Metanephrops spp.</i> <i>Nephropsis aculeata</i>					

2 – This hazard only applies if the product is marketed unviscerated.

7 – This hazard only applies if the lobster are held in pounds.

Market Names	Latin Names	Hazards					
		Biological		Chemical			
		Pathogens CHP 4	Parasites CHP 5	Natural Toxins CHP 6	Chemical CHP 9	Drugs CHP 11	
<b>MUSSEL</b>	<i>Modiolus spp.</i>	✓		✓	✓		
	<i>Mytilus spp.</i>	✓		✓	✓		
	<i>Perna canaliculus</i>	✓		✓	✓		
<b>OCTOPUS</b>	<i>Eledone spp.</i>		✓ <sup>1</sup>				
	<i>Octopus spp.</i>		✓ <sup>1</sup>				
<b>OYSTER</b>	<i>Crassostrea spp.</i>	✓		✓	✓		
	<i>Ostrea spp.</i>	✓		✓	✓		
	<i>Tiostrea spp.</i>	✓		✓	✓		
<b>PEN SHELL</b>	<i>Atrina pectinata</i>	✓		✓	✓		
<b>PERIWINKLE</b>	<i>Littorina littorea</i>						
	<i>Lunatia spp.</i>						
<b>SCALLOP</b>	<i>Aequipecten spp.</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
	<i>Amusium spp.</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
	<i>Argopecten nucleus</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
	<i>Chlamys spp.</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
	<i>Patinopecten yessoensis</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
	<i>Pecten spp.</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
	<i>Placopectin magellanicus</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
	<b>SCALLOP AQUACULTURED</b>	<i>Aequipecten spp.</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓	
		<i>Amusium spp.</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓	
<i>Argopecten nucleus</i>		✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<i>Chlamys spp.</i>		✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<i>Patinopecten yessoensis</i>		✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<i>Pecten spp.</i>		✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<i>Placopectin magellanicus</i>		✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<b>SCALLOP or BAY SCALLOP</b>	<i>Argopecten irradians</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<b>SCALLOP, CALICO</b>	<i>Argopecten gibbus</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<b>SCALLOP or WEATHERVANE</b>	<i>Patinopecten caurinus</i>	✓ <sup>2</sup>		✓ <sup>2</sup>	✓		
<b>SEA CUCUMBER</b>	<i>Cucumaria spp.</i>				✓		
	<i>Holothuria spp.</i>				✓		
	<i>Parastichopus spp.</i>				✓		
	<i>Stichopus spp.</i>				✓		

1 – This hazard only applies if the product is intended to be consumed raw or partially cooked.

2 – This hazard only applies if the product is marketed unviscerated.

Market Names	Latin Names	Hazards				
		Biological		Chemical		
		Pathogens CHP 4	Parasites CHP 5	Natural Toxins CHP 6	Chemical CHP 9	Drugs CHP 11
<b>SEA URCHIN roe</b>	<i>Echinus esculentus</i> <i>Evechinus chloroticus</i> <i>Heliocidaris spp.</i> <i>Loxechimus spp.</i> <i>Paracentrotus spp.</i> <i>Pseudocentrotus spp.</i> <i>Strongylocentrotus spp.</i>				✓ ✓ ✓ ✓ ✓ ✓ ✓	
<b>SEABOB</b>	<i>Xiphopenaeus kroyeri</i>					
<b>SHRIMP</b>	<i>Crangon spp.</i> <i>Metapenaeus affinis</i> <i>Palaemon serratus</i> <i>Palaemonetes vulgaris</i> <i>Pandalopsis dispar</i> <i>Pandalus spp.</i> <i>Penaeus spp.</i> <i>Plesionika martia</i>					
<b>SHRIMP AQUACULTURED</b>	<i>Crangon spp.</i> <i>Exopalaemon styliferus</i> <i>Macrobrachium spp.</i> <i>Metapenaeus spp.</i> <i>Palaemon serratus</i> <i>Palaemonetes vulgaris</i> <i>Pandalopsis dispar</i> <i>Pandalus spp.</i> <i>Penaeus spp.</i> <i>Plesionika martia</i>				✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
<b>SHRIMP, FRESHWATER</b>	<i>Macrobrachium spp.</i>					
<b>SHRIMP, FRESHWATER AQUACULTURED</b>	<i>Macrobrachium spp.</i>				✓	✓
<b>SHRIMP, ROCK</b>	<i>Sicyonia brevirostris</i>					
<b>SHRIMP, ROYAL</b>	<i>Pleoticus robustus</i>					
<b>SHRIMP or PINK SHRIMP</b>	<i>Pandalus borealis</i> <i>Pandalus jordani</i>					

Market Names	Latin Names	Hazards				
		Biological		Chemical		
		Pathogens CHP 4	Parasites CHP 5	Natural Toxins CHP 6	Chemical CHP 9	Drugs CHP 11
<b>SHRIMP or PRAWN</b>	<i>Hymenopenaeus sibogae</i>					
<b>SNAIL or ESCARGOT</b>	<i>Otala spp.</i> <i>Helix pomatia</i> <i>Achatina fulica</i>		✓ <sup>1</sup>		✓ ✓	
<b>SQUID</b>	<i>Alloteuthis media</i> <i>Berryteuthis magister</i> <i>Dosidicus gigas</i> <i>Illex spp.</i> <i>Loligo spp.</i> <i>Lolliguncula spp.</i> <i>Nototodarus spp.</i> <i>Ommastrephes spp.</i> <i>Rossia macrosoma</i> <i>Sepioloa rondeleti</i> <i>Sepioteuthis spp.</i> <i>Todarodes sagittatus</i>		✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup> ✓ <sup>1</sup>			
<b>TOP SHELL</b>	<i>Turbo cornutus</i> <i>Nonodonta turbinata</i>					
<b>WHELK or SEA SNAIL</b>	<i>Buccinum spp.</i> <i>Busycon spp.</i> <i>Neptunea spp.</i>			✓ <sup>2</sup>		

1 – This hazard only applies if the product is intended to be consumed raw or partially cooked.

2 – This hazard only applies if the product is marketed unviscerated.

Table #3-3

Potential Process Related Hazards

Finished Product Food	Package Type	Method of Distribution and Storage	Hazards										
			Biological					Chemical			Physical		
			Pathogen Growth-Temperature Abuse CHP 12	<i>C. botulinum</i> growth CHP 13	<i>S. aureus</i> toxin inadequate drying CHP 14	<i>S. aureus</i> toxin batter CHP 15	Pathogen survival through cooking CHP 16	Pathogen survival through pasteurization CHP 17	Pathogen contamination after pasteurization CHP 18	Food and color additives CHP 19	Metal fragments CHP 20		
Cooked shrimp, crab, lobster, and other fish, including cooked meat, sections, and whole fish, and including surimi-based analog products	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Frozen	✓				✓				✓		
Cooked shrimp, crab, lobster, and other fish, including cooked meat, sections, and whole fish, and including surimi-based analog products	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Other than frozen	✓	✓				✓				✓	
Cooked shrimp, crab, lobster, and other fish, including cooked meat, sections, and whole fish, and including surimi-based analog products	Other than vacuum packaged, MAP, CAP, hermetically sealed or packed in oil	All	✓					✓				✓	
Pasteurized crab, lobster, and other fish, including pasteurized surimi-based analog products	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Frozen	✓							✓		✓	

Note: MAP = modified atmosphere packaging; CAP = controlled atmosphere packaging

Finished Product Food	Package Type	Method of Distribution and Storage	Hazards											
			Biological						Chemical				Physical	
			Pathogen Growth-Temperature Abuse CHP 12	<i>C. botulinum</i> growth CHP 13	<i>S. aureus</i> toxin inadequate drying CHP 14	<i>S. aureus</i> toxin batter CHP 15	Pathogen survival through cooking CHP 16	Pathogen survival through pasteurization CHP 17	Pathogen contamination after pasteurization CHP 18	Food and color additives CHP 19	Metal fragments CHP 20			
Pasteurized crab, lobster, and other fish, including pasteurized surimi-based analog products	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Other than frozen	✓	✓				✓	✓		✓	✓	✓	✓
Pasteurized crab, lobster, and other fish, including pasteurized surimi-based analog products	Other than vacuum packaged, MAP, CAP, hermetically sealed or packed in oil	All	✓							✓		✓		✓
Smoked fish	All	All		✓										✓
Salads and cocktails prepared from ready-to-eat fishery products	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Frozen	✓										✓	✓
Salads and cocktails prepared from ready-to-eat fishery products	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Other than frozen	✓											✓

Note: MAP = modified atmosphere packaging; CAP = controlled atmosphere packaging



Finished Product Food	Package Type	Method of Distribution and Storage	Hazards										
			Biological						Chemical		Physical		
			Pathogen Growth-Temperature Abuse CHP 12	<i>C. botulinum</i> growth CHP 13	<i>S. aureus</i> toxin inadequate drying CHP 14	<i>S. aureus</i> toxin batter CHP 15	Pathogen survival through cooking CHP 16	Pathogen survival through pasteurization CHP 17	Pathogen contamination after pasteurization CHP 18	Food and color additives CHP 19	Metal fragments CHP 20		
Salads and cocktails prepared from ready-to-eat fishery products	Other than vacuum packaged, MAP, CAP, hermetically sealed or packed in oil	All	✓								✓	✓	✓
Raw, breaded shrimp, finfish, oysters, clams, squid, and other fish	All	All			✓							✓	✓
Stuffed crab, shrimp, finfish, and other fish	All	All	✓									✓	✓
Dried fish	All	All	✓		✓							✓	✓
Raw oysters, clams and mussels	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Frozen	✓									✓	✓
Raw oysters, clams and mussels	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Other than frozen	✓	✓								✓	✓

Note: MAP = modified atmosphere packaging; CAP = controlled atmosphere packaging

Finished Product Food	Package Type	Method of Distribution and Storage	Hazards										
			Biological						Chemical		Physical		
			Pathogen Growth-Temperature Abuse CHP 12	<i>C. botulinum</i> growth CHP 13	<i>S. aureus</i> toxin inadequate drying CHP 14	<i>S. aureus</i> toxin batter CHP 15	Pathogen survival through cooking CHP 16	Pathogen survival through pasteurization CHP 17	Pathogen contamination after pasteurization CHP 18	Food and color additives CHP 19	Metal fragments CHP 20		
Raw oysters, clams and mussels	Other than vacuum packaged, MAP, CAP, hermetically sealed or packed in oil	All	✓								✓	✓	
Raw fish other than oysters, clams and mussels (includes non-finish species)	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Frozen										✓	✓
Raw fish other than oysters, clams and mussels (includes non-finish species)	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Other than frozen	✓	✓								✓	✓
Raw fish other than oysters, clams and mussels (includes non-finish species)	Other than vacuum packaged, MAP, CAP, hermetically sealed or packed in oil	All										✓	✓

Note: MAP = modified atmosphere packaging; CAP = controlled atmosphere packaging

Finished Product Food	Package Type	Method of Distribution and Storage	Hazards											
			Biological						Chemical				Physical	
			Pathogen Growth-Temperature Abuse CHP 12	<i>C. botulinum</i> growth CHP 13	<i>S. aureus</i> toxin inadequate drying CHP 14	<i>S. aureus</i> toxin batter CHP 15	Pathogen survival through cooking CHP 16	Pathogen survival through pasteurization CHP 17	Pathogen contamination after pasteurization CHP 18	Food and color additives CHP 19	Metal fragments CHP 20			
Partially cooked or uncooked prepared foods	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Frozen	✓									✓	✓	✓
Partially cooked or uncooked prepared foods	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Other than frozen	✓	✓									✓	✓
Partially cooked or uncooked prepared foods	Other than vacuum packaged, MAP, CAP, hermetically sealed or packed in oil	All	✓										✓	✓
Fully cooked prepared foods	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Frozen	✓						✓				✓	✓

Note: MAP = modified atmosphere packaging; CAP = controlled atmosphere packaging

Finished Product Food	Package Type	Method of Distribution and Storage	Hazards												
			Biological						Chemical				Physical		
			Pathogen Growth-Temperature Abuse CHP 12	<i>C. botulinum</i> growth CHP 13	<i>S. aureus</i> toxin inadequate drying CHP 14	<i>S. aureus</i> toxin batter CHP 15	Pathogen survival through cooking CHP 16	Pathogen survival through pasteurization CHP 17	Pathogen contamination after pasteurization CHP 18	Food and color additives CHP 19	Metal fragments CHP 20				
Fully cooked prepared foods	Vacuum packaged (e.g. mechanical vacuum, steam sweep, hot fill), MAP, CAP, hermetically sealed or packed in oil	Other than frozen	✓	✓			✓					✓		✓	
Fully cooked prepared foods	Other than vacuum packaged, MAP, CAP, hermetically sealed or packed in oil	All	✓				✓					✓		✓	
Fermented, acidified, pickled, salted, and low acid canned foods	All	All	✓									✓*		✓	

Note: MAP = modified atmosphere packaging; CAP = controlled atmosphere packaging

\* Note: Controls for this hazard need not be included in HACCP plans for shelf-stable, acidified and low acid canned foods. See 21 CFR 113 and 114 for mandatory controls.