Regulatory Update
ASMI Seafood Technical Committee Meeting

Margaret Malkoski
National Fisheries Institute
November 7, 2025

Who is NFI?

- Nation's leading advocacy organization for the seafood industry.
- NFI's members represent every industry segment.
  - fishing vessels
  - aquaculture
  - processors
  - importers
  - restaurant & retail
- NFI and members support and promote sound public policy based on science.

Agenda

- Current Import Issues
- FDA FSMA 204 Traceability Rule
- Regulatory Update
- Educational Outreach
- Upcoming NFI Staff Changes

Seafood Import Prohibitions under the Marine Mammal Protection Act Import Provisions

AUGUST 29, 2025

NOAA Fisheries Issues Comparability Findings for Foreign Fisheries

The United States is a global leader in protecting marine mammals and promoting sustainable fisheries. U.S. fisheries follow some of the world's most robust conservation practices, including strict measures to reduce marine mammal bycatch.

NOAA Fisheries has issued full comparability findings, under the Marine Mammal Protection Act import provisions, for **all fisheries from 89 nations, issued partial comparability findings for 34 nations' fisheries, and denied comparability findings for all fisheries from 12 nations.**

The import provisions prohibit the entry of fish and fish products to the U.S. market if the importing country does not require their fisheries to have comparable standards for reducing marine mammal bycatch as those of U.S. fisheries.

Any fish or fish products sourced from foreign fisheries that do not have comparable standards for reducing marine mammal bycatch as U.S. fisheries will be ineligible for import into the United States beginning on January 1, 2026.

This action is consistent with the President's Executive Order "Restoring American Seafood Competitiveness" because it will level the playing field for domestic seafood producers as they will no longer compete with fish and fish products that are caught with weaker standards for reducing marine mammal bycatch. NOAA Fisheries is working to reduce threats to marine mammals across the globe by strengthening measures in regional fishery management organizations, building capacity in other nations, and promoting technologies and practices to reduce conflicts with marine mammals around the world.

https://www.fisheries.noaa.gov/international-affairs/2025-marine-mammal-protection-act-comparability-finding-determinations

2025 Comparability Findings

12 nations denied comparability findings for all of their fisheries:
Benin*, Grenada, Guinea, Haiti*, Iran*, Namibia, New Caledonia, Russia, Saint Lucia, The Gambia, Togo, Venezuela*

34 nations denied comparability findings for a subset of their fisheries:
Bangladesh, Brazil, Cameroon, Chile, China, Colombia, Ecuador, El Salvador, Ghana, Indonesia, Ireland, Kenya, Liberia, Madagascar, Malaysia, Mauritania, Mexico, Mozambique, Myanmar (Burma), Nigeria, Oman, Peru, Philippines, Saudi Arabia, Senegal, Somalia, South Korea, Sri Lanka, St. Kitts and Nevis, Suriname, Taiwan, Türkiye, United Arab Emirates, Vietnam

**Nations that did not submit an application for a comparability finding*

New Import Alerts 16-138 99-51

16-138 - “Detention Without Physical Examination of Seafood Products That Appear to Have Been Prepared, Packed or Held Under Insanitary Conditions”

- First published August 13
- Currently includes one firm in Greece for DWPE of salmon

99-51 - “Detention Without Physical Examination of Human Food Products That Appear To Have Been Prepared, Packed Or Held Under Insanitary Conditions Resulting in Chemical Contamination”

- First published August 14
- Currently includes two firms in Indonesia, one for DWPE of all shrimp products and another for DWPE of all spice products

§342. Adulterated food

A food shall be deemed to be adulterated-

(a) Poisonous, insanitary, etc., ingredients

(1) If it bears or **contains any poisonous or deleterious substance which may render it injurious to health**; but in case the substance is not an added substance such food shall not be considered adulterated under this clause if the quantity of such substance in such food does not ordinarily render it injurious to health.[1]

§342. Adulterated food

A food shall be deemed to be adulterated-

(a) Poisonous, insanitary, etc., ingredients

(4) if it has been prepared, packed, or held under insanitary conditions whereby it **may have become contaminated** with filth, or whereby it **may have been rendered** injurious to health;

Import Alert 99-52

- Detention Without Physical Examination of Certain Human Food Products From Certain Regions In Indonesia Subject To The Requirement of Import Certification Per Section 801(q)

- https://www.accessdata.fda.gov/CMS_IA/importalert_1188.html

Section 801(q) Certifications Concerning Imported Foods. FD&C Act

(1) Secretary may require, as a condition of admission into the US, that an entity provide certification or other assurances **that the food complies with the Act**.

(2) **Factors to be considered** in requiring certification-- base the determination on the risk of the food, including--

(A) **known safety risks** associated with the **food**;

(B) **known food safety risks** associated with the country, territory, or **region** of origin;

(C) a finding by the Secretary, supported by scientific, risk-based evidence, that—

(i) the food safety programs, systems, and standards in country, territory, or region of origin of the food are inadequate; and

(ii) the certification would assist the Secretary in determining whether to refuse or admit; and

(D) information submitted to the Secretary regarding improvements in response to (C)

(3) Certifying entities

(A) Agency or representative of the government of the country of origin
(B) Entities accredited under FDA's Accredited Third-Party Certification Program (section 808)

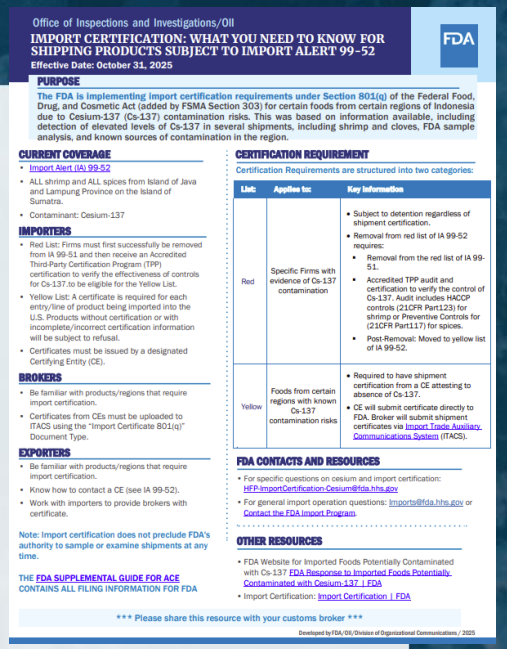
Scope

- FDA intends to implement import certification for **certain foods** from **certain regions** of Indonesia. Hereinafter collectively referred to as certain foods and certain regions.
  - Starting on October 31, 2025, for **shrimp** from Island of Java and Province of Lampung on the Island of Sumatra
  - Starting on October 31, 2025, for **all spices** from Island of Java and Province of Lampung on the Island of Sumatra.

- Yellow List Criteria (99-52)
  - Applies to all shrimp and spices from the entire region.
  - No list of specific firms – firms are responsible for knowing the requirement and seeking certification from appropriate CE prior to shipping
  - FDA's import systems will look at prior notice entry data and product codes for shipments from these regions of Indonesia – FDA will detain & refuse without assurances
- Red List (99-52)
  - Limited to specific firms where there is evidence of contamination in product samples, the facility processing environment or other information to suggest contamination occurred.

FDA Cesium 137 Resources

- FDA fact sheet for importers and brokers
- Import Alert 99-52
- Letter Designating MFQAA Certifying Entity for Shrimp
- Appendix 1: MFQAA Procedures for Radionuclide Scanning and Product Testing
- Appendix 2: MFQAA Communication Protocol & Verification Practices for Cesium-137 (Cs-137) Detection
- Appendix 3: MFQAA Required Data Elements & Submission of Certificates



Office of Inspections and Investigations/OII

IMPORT CERTIFICATION: WHAT YOU NEED TO KNOW FOR SHIPPING PRODUCTS SUBJECT TO IMPORT ALERT 99-52

Effective Date: October 31, 2025

PURPOSE

The FDA is implementing import certification requirements under Section 801(q) of the Federal Food, Drug, and Cosmetic Act (added by FSMA Section 303) for certain foods from certain regions of Indonesia due to Cesium-137 (Cs-137) contamination risks. This was based on information available, including detection of elevated levels of Cs-137 in several shipments, including shrimp and cloves, FDA sample analysis, and known sources of contamination in the region.

CURRENT COVERAGE

- Import Alert (IA) 99-52
- ALL shrimp and ALL spices from Island of Java and Lampung Province on the Island of Sumatra.
- Contaminant: Cesium-137

IMPORTERS

- Red List: Firms must first successfully be removed from IA 99-51 and then receive an Accredited Third-Party Certification Program (TPP) certification to verify the effectiveness of controls for Cs-137.to be eligible for the Yellow List.
- Yellow List: A certificate is required for each entry/line of product being imported into the U.S. Products without certification or with incomplete/incorrect certification information will be subject to refusal.
- Certificates must be issued by a designated Certifying Entity (CE).

BROKERS

- Be familiar with products/regions that require import certification.
- Certificates from CEs must be uploaded to ITACS using the "Import Certificate 801(q)" Document Type.

EXPORTERS

- Be familiar with products/regions that require import certification.
- Know how to contact a CE (see IA 99-52).
- Work with importers to provide brokers with certificate.

Note: Import certification does not preclude FDA's authority to sample or examine shipments at any time.

THE FDA SUPPLEMENTAL GUIDE FOR ACE CONTAINS ALL FILING INFORMATION FOR FDA

CERTIFICATION REQUIREMENT

Certification Requirements are structured into two categories:

List:	Applies to:	Key Information
Red	Specific Firms with evidence of Cs-137 contamination	• Subject to detention regardless of shipment certification. • Removal from red list of IA 99-52 requires: ▪ Removal from the red list of IA 99-51. ▪ Accredited TPP audit and certification to verify the control of Cs-137. Audit includes HACCP controls (21CFR Part123) for shrimp or Preventive Controls for (21CFR Part117) for spices. ▪ Post-Removal: Moved to yellow list of IA 99-52.
Yellow	Foods from certain regions with known Cs-137 contamination risks	• Required to have shipment certification from a CE attesting to absence of Cs-137. • CE will submit certificate directly to FDA. Broker will submit shipment certificates via Import Trade Auxiliary Communications System (ITACS).

FDA CONTACTS AND RESOURCES

- For specific questions on cesium and import certification: HFP.ImportCertification-Cesium@fda.hhs.gov
- For general import operation questions: Imports@fda.hhs.gov or Contact the FDA Import Program

OTHER RESOURCES

- FDA Website for Imported Foods Potentially Contaminated with Cs-137 FDA Response to Imported Foods Potentially Contaminated with Cesium-137 | FDA
- Import Certification: Import Certification | FDA

***** Please share this resource with your customs broker *****

Developed by FDA/OII/Division of Organizational Communications / 2025

FDA FSMA 204 Traceability Rule

Margaret Malkoski

New - Timing for Final Rule Implementation

Key Dates:

Final rule published: November 21, 2022

~~Effective date: January 20, 2023~~

New Compliance date:

July 20, 2028

- Final Rule: Requirements for Additional Traceability Records for Certain Foods

FDA's New Traceability Rule – Past Time to Get Started

Fully understand the Rule's requirements and how your company collects and shares required information

Meet with your suppliers and customers. How will they transfer the information to you and can they accept your data

NFI FSMA Traceability Rule Resources

- Mapping Exercise Worksheets
- Common Misconceptions
- FSMA Traceability Rule Summary Guide
- Supply Chain Partner Notification Letter
- Supplier Written Agreement Letter (Kill Step)
- Supplier Written Agreement Letter(Commingled)
- Traceability Plan Template
- Importer's Checklist **NEW**
- Electronic Sortable Spreadsheet Template

FSPCA Food Traceability Rule (FTR) Training

Who should take the course?

- All domestic and foreign entities that manufacture, process, pack, or hold foods that are covered by the Food Traceability Rule

Overall Goals of the FSPCA Food Traceability Rule Training:

1. Recognize the importance of, and need for, the Food Traceability Rule
2. Identify what is required under the Food Traceability Rule
3. Demonstrate what steps need to be taken to be compliant with the rule
4. Practice how to develop a traceability plan

- Curriculum development complete.
- 4 FSPCA FTR Combination Courses will be completed by end of February 2026 to build the cadre of FTR Lead Instructors

NFI's FSMA 204 Requirements for Additional Traceability Records for Certain Foods Preparedness Survey

Watch for the Survey from the Future Leaders Class of 2025

Regulatory Update

FDA Guidance under Development

Hazard Analysis and Risk-Based Preventive Controls for Human Food; Chapter 12: Preventive Controls for Chemical Hazards	FSMA
The Food Traceability Rule: Questions and Answers; Draft Guidance for Industry	FSMA

https://www.fda.gov/food/guidance-documents-regulatory-information-topic-food-and-dietary-supplements/foods-program-guidance-under-development

FDA Regulations under Development

Regulation Title	Goal Date
Substances Generally Recognized as Safe PR	2025/10
Use of Salt Substitutes to Reduce the Sodium Content in Standardized Foods FR	2026/05
Front-of-Package Nutrition Labeling FR	2026/05
Amendment of Procedural Requirements for Food Additive Petitions PR	Long-Term 2026/9
Amendment of Procedural Requirements for Color Additive Petitions PR	Long-Term 2026/9
Fish and Shellfish; Canned Tuna Standard of Identity FR	2027/05

Comments to the Government

Proposal To Revoke 23 Standards of Identity for Foods
RFI on State Laws Having Significant Adverse Effects on … Interstate Commerce
Food Traceability Rules Compliance Date Extension
U.S. Grade Standard for Frozen Breaded Shrimp (NOAA)
Regulatory Reform and Deregulation
Front-of-Package Nutrition Labeling
Labeling of Plant-Based Alternatives to Animal-Derived Foods
Unfair Trade Practices … From Non-Reciprocal Trade Arrangements
Export Lists for Human Food
Seafood Import Procedures and Certification of Admissibility
Initiation of Section 301 Investigation
Scientific Report of the 2025 Dietary Guidelines Advisory Committee
U.S. Grade Standard for Fish Fillet Blocks
U.S. Grade Standard for Frozen Battered or Breaded Fish
Voluntary Sodium Reduction Goals

NOAA Seafood Inspection Program Update

NOAA FISHERIES

SEAFOOD INSPECTION PROGRAM UPDATE

AUGUST 27, 2025

U.S. Grade Standard for Frozen Fried Fish Portions and Sticks, and Raw Breaded Fish Portions and Sticks

Today, the NOAA Fisheries Office of International Affairs, Trade, and Commerce announced a revision to the U.S. Grade Standard for Frozen Fried Fish Portions, Frozen Fried Fish Sticks, Raw Breaded Fish Portions, and Raw Breaded Fish Sticks as part of its Seafood Inspection Program (SIP). The revision consolidates these four standards into the U.S. Grade Standard for Battered or Breaded Fish Products. This revision reflects NOAA's commitment to supporting the seafood industry through science-based policies and continuous improvement of its inspection services.

Originally, in 1996, NOAA removed product-specific grading standards from federal regulations and began maintaining them as program policies within the SIP Inspection Manual. The current revision is part of a broader initiative to streamline and enhance these grade standards.

The grade standard modernization effort introduces a harmonized approach that improves inspection procedures and guidance. By simplifying grading-related processes and reducing administrative burdens, the revised standards are designed to increase efficiency while maintaining the integrity and accuracy of inspection results.

NOAA FISHERIES

SEAFOOD INSPECTION PROGRAM UPDATE

SEPTEMBER 19, 2025

U.S. Grade Standard for U.S. Grade Standard for Frozen Raw Breaded Shrimp

Today, the NOAA Fisheries Office of International Affairs, Trade, and Commerce announced a revision to the U.S. Grade Standard for Frozen Raw Breaded Shrimp, now titled U.S. Grade Standard for Frozen Battered or Breaded Shrimp. This revision reflects NOAA's commitment to supporting the seafood industry through science-based policies and continuous improvement of its inspection services.

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Jon Bell, (Acting) Chief
Seafood Inspection Program
Office of International Affairs, Trade, and Commerce

Questions?

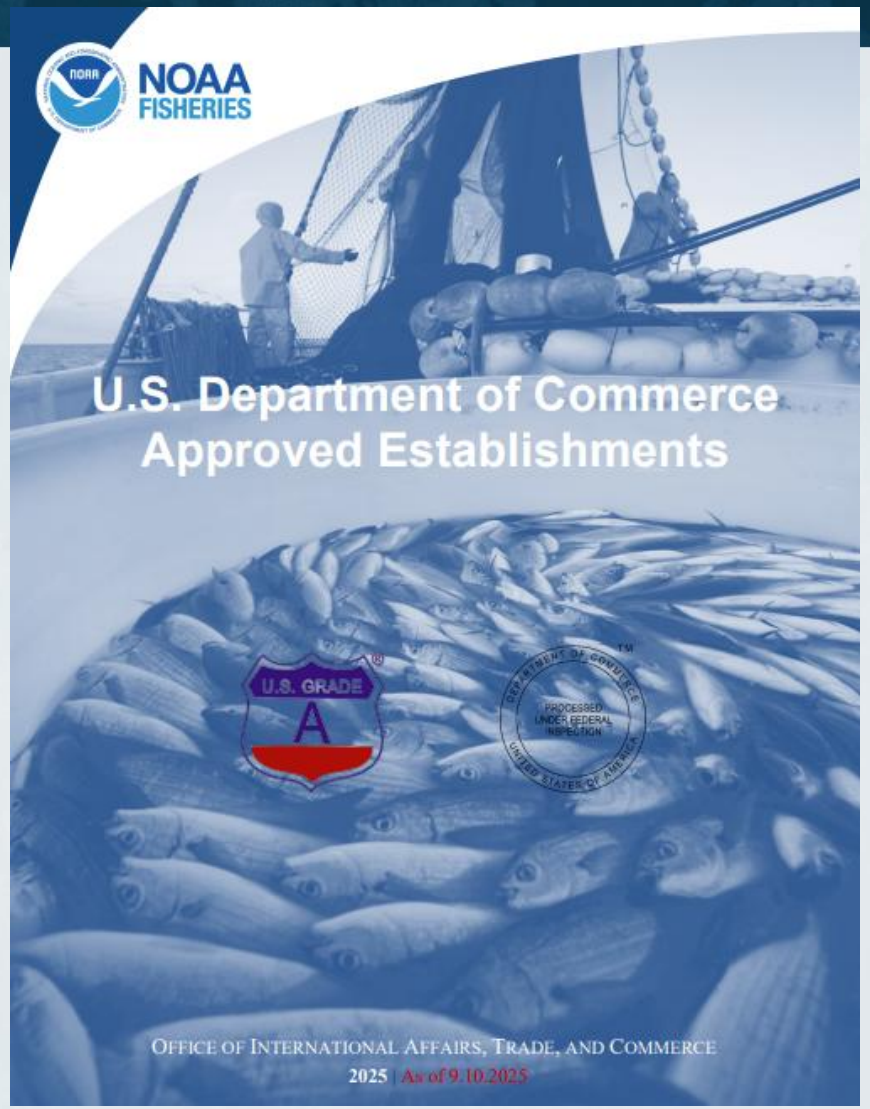
Contact NMFS.Seafood.Services@noaa.gov

PART 5 – U.S. Grade Standards and Procedures for Grading
(Rev. September 2025)

Table of Contents

Seafood Inspection Manual

Changes go directly into the NOAA Seafood Inspection Manual once the comment period review is completed and the date of change is noted.



https://www.fisheries.noaa.gov/resource/document/us-department-commerce-approved-establishments

	USDC GRADE MARK	PUFI MARK
FISH		
Raw Breaded Fillets	---	50%[1]
Precooked Breaded Fillets	---	50%
Precooked Crispy/Crunchy Fillets	---	50%
Precooked Battered Fillets	---	40%
Raw Breaded Portions	75%	50%
Precooked Breaded Portions	65%	50%
Precooked Battered Portions	---	40%
Raw Breaded Sticks	72%	50%
Precooked Breaded Sticks	60%	50%
Precooked Battered Sticks	---	40%
SCALLOPS		
Raw Breaded Scallops	50%	50%
Precooked Breaded Scallops	50%	50%
Precooked Crispy/Crunchy Scallops	---	50%
Precooked Battered Scallops	---	40%
SHRIMP		
Lightly Breaded Shrimp	65%	65%[2]
Raw Breaded Shrimp	50%	50%[2]
Precooked Crispy/Crunchy Shrimp	---	50%
Precooked Battered Shrimp	---	40%
Imitation Breaded Shrimp	---	NO MINIMUM. Encouraged to put percent on lbl.[3]
OYSTERS		
Raw Breaded Oysters	---	50%[4]
Precooked Breaded Oysters	---	50%[4]
Precooked Crispy/Crunchy Oysters	---	50%[4]
Precooked Battered Oysters	---	40%[4]
MISCELLANEOUS		
Fish and Seafood Cakes	---	35%
Extruded and Breaded Products	---	35%

https://www.fisheries.noaa.gov/topic/seafood-commerce-and-trade/seafood-inspection

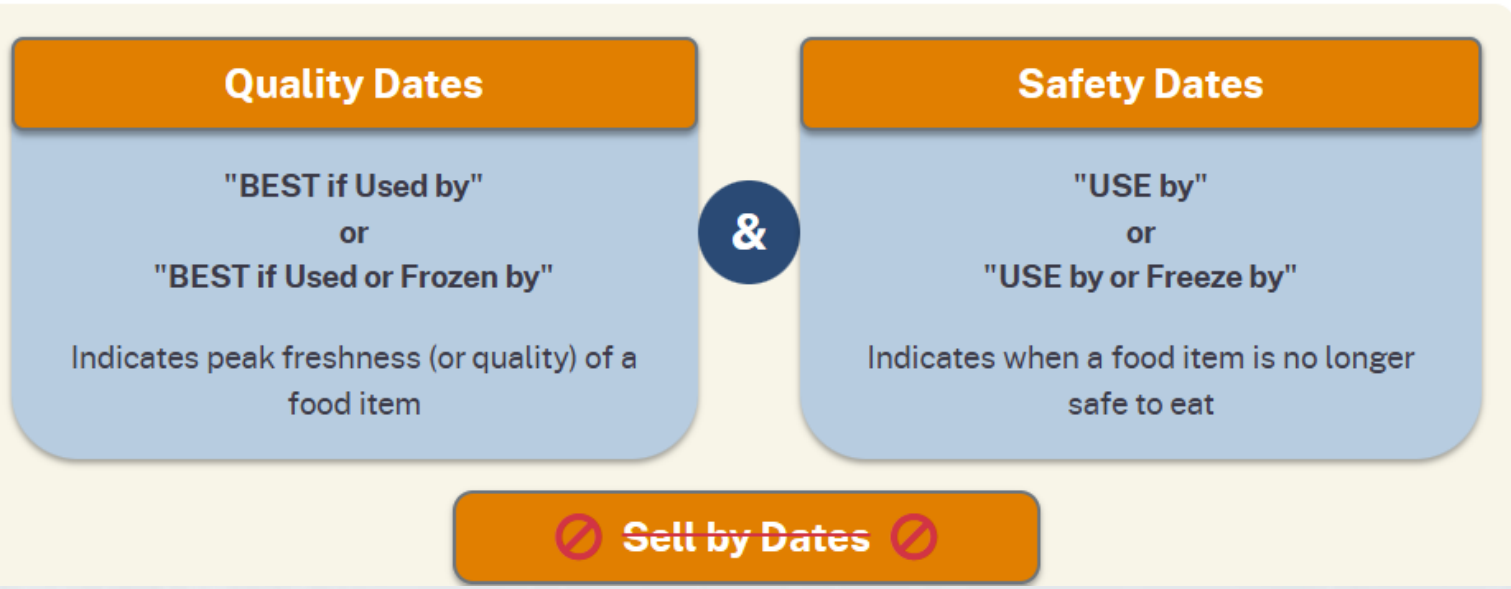
Reference : NOAA Seafood Inspection Handbook Pages 217 & 218

State Regulations

- Date Labeling
- Ingredient Bans
- New Labeling Requirements

New California Date Labeling

- California's AB-660 – Effective July 1, 2026



https://www.cdfa.ca.gov/is/foodrecovery/fooddatelabeling/

New Ingredient Bans – State and Federal level

- California Food Safety Act (AB 418) - effective Jan 1, 2027

  Brominated vegetable oil, Potassium bromate, Propylparaben, and ***Red Dye No. 3***

- CA public schools - effective Jan 1, 2028

  Artificial food dyes like *Red No. 3 & 40, Yellow No. 5 & 6, Blue No. 1 & 2 and Green No. 3*

FDA –Revoked Authorization to Use Red No. 3 (effective Jan 15, 2027)

Sugar, Corn Syrup, Confectioner's Glaze (Shellac), Salt, Dextrose, Gelatin, Sesame Oil, Artificial Flavor, Honey, Yellow 6, Yellow 5, Red 3.

Ingredient Ban Trend is growing ……

West Virginia – public schools and later state-wide

- *Red Dye #40 and #3*
- ***Yellow Dye #5 and #6***
- *Blue Dye #1 and #2*
- *Green Dye #3*
- *Butylated hydroxyanisole*
- *Propylparaben*

Utah – public schools

- *Potassium bromate*
- *Propylparaben*
- *Blue Dye 1 and 2*
- *Green Dye 3*
- *Red Dye 3 and 40*
- *Yellow Dye 5 and 6*

State: Seafood Specific Labeling Regulations

- **Washington:** It is unlawful to sell fish/shellfish at retail without species identified by common name at point of sale. Halibut must be labeled specifically as *Hippoglossus* species en.wikipedia.org+2nationalaglawcenter.org+2seafoodsource.com+2.

- **California:** Passed **SB 1138** requiring correct common species names, origin (domestic/imported), and wild vs. farm-raised labeling. **Also bans using the term "organic" for seafood until USDA establishes standards** oceana.org+1aboutseafood.com+1.
  - The CA Health & Safety Code grants the Department authority to define fish/shrimp names used, ensuring adherence to FDA names schatz.senate.gov+14law.justia.com+14leginfo.ca.gov+14.
  - For Gulf oysters, regulations require harvest date and specific warning labels at point of sale law.cornell.edu.

- **Catfish-specific laws (6 states):** Tennessee, Louisiana, Arkansas, Mississippi, Alabama, and Kansas require labeling of catfish products by origin—domestic vs imported—and Arkansas/others mandate "Farm-Raised," "Ocean," or state-specific labels nationalaglawcenter.org.

State: Seafood Specific Labeling Regulations

- Alabama
  - Act #2024-339/HB 66 (**Oct 2024**)
  - Mandates that **all seafood**, including shrimp, in grocery stores and restaurants be labeled by **domestic/imported status** (could include COO) and indicate **wild-caught or farm-raised**
- Mississippi
  - HB 602 (**effective July 1, 2025**)
  - Requires all seafood and crawfish sold at grocery stores, markets, restaurants, or food trucks to be **labeled as "Domestic" (U.S.) or "Imported."**
  - Applies to wholesalers, processors, retailers, and foodservice establishments
  - Seafood means: crustaceans, mollusks, salt-water finfish

Louisiana New!

- **Act # - 148 Effective Jan 1, 2025**

- It is now illegal to package, advertise, or market crawfish, shrimp, or similar seafood using Louisiana-related imagery, phrases, or colors if the product isn't genuinely linked to Louisiana's cultural heritage and produced or landed within the state.

- Restaurants, markets, and grocers must clearly label any imported crawfish or shrimp:

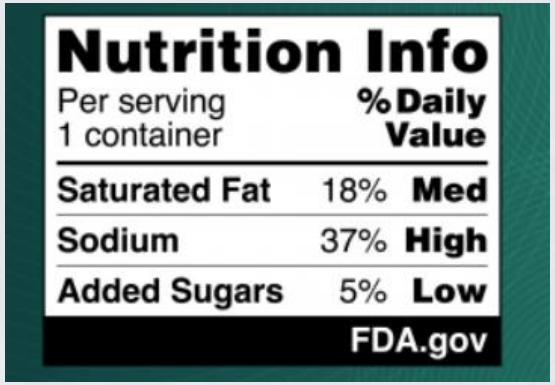
• Does not apply if the item's country of origin is displayed on the front panel in 30-point Arial Black font

https://legis.la.gov/legis/ViewDocument.aspx?d=1379419

Other States to Watch:

- Texas – *HB 2343*
  - Requires **imported shrimp** (from outside US waters) sold in TX to carry a **conspicuous "imported" label**
  - **State agencies & school districts** are prohibited from serving imported shrimp
  - Restaurants must post or menu-label imported shrimp
  - **Currently Stalled**
- South Carolina – H. 4248
  - Introduced March 27, 2025
  - Prohibits sale of shrimp or shrimp products without clear country of origin labeling, including menu disclosure in food-service establishments
  - **Still in committee**

What's Else is Around the Corner from FDA that may affect your packaging?



- **Front of Pack Nutritional Labeling** Proposed Rule
  - comments due July 15, 2025
- **Ultra Processed Foods**
  - Request for Information on the criteria for developing uniform federal definition
  - Comments due date was October 23, 2025
- **Generally Recognized as Safe (GRAS) –**
  - Notice of Proposed rulemaking is slated for 2026 and has the potential to revise the GRAS Final Rule. FDA aim is to eliminate the voluntary/self-affirmed GRAS pathway.

Seafood Related Research and Resources

New Microplastics & Seafood

Examining misconceptions about plastic-particle exposure from ingestion of seafood and risk to human health

https://pubs.acs.org/doi/10.1021/acs.estlett.5c00551

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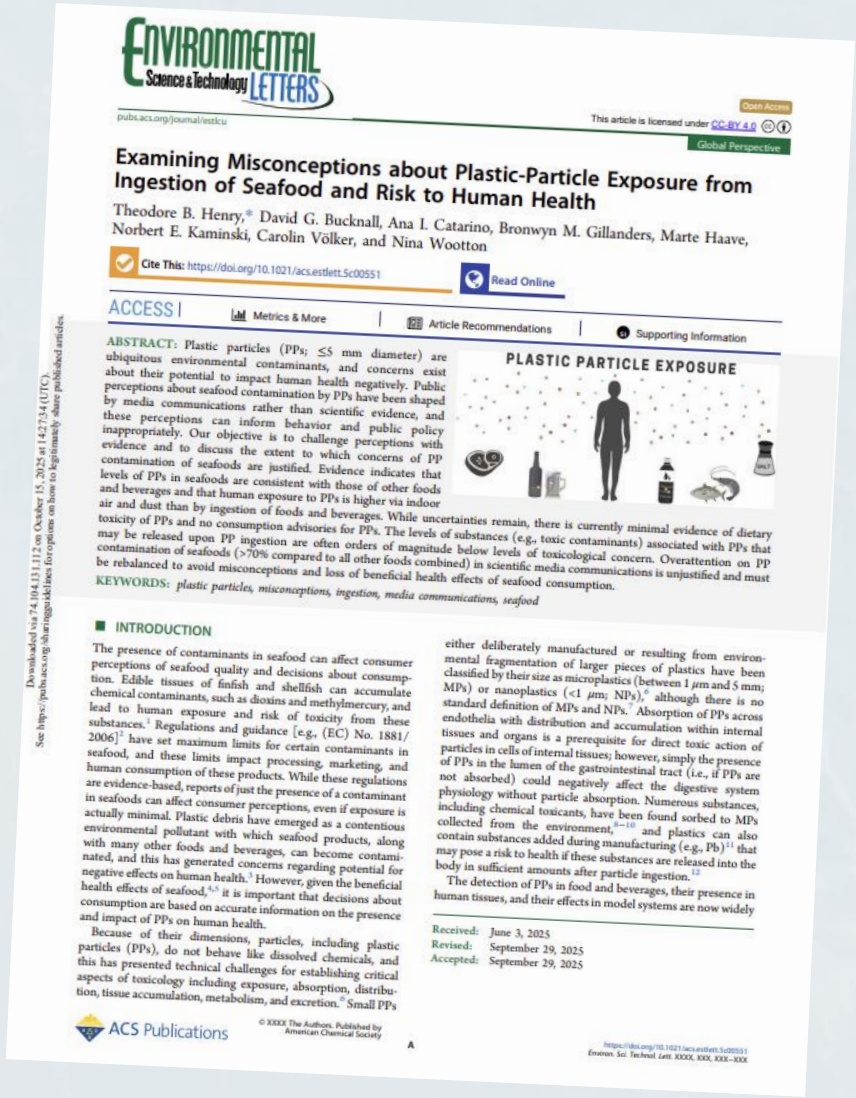

ENVIRONMENTAL Science & Technology LETTERS

pubs.acs.org/journal/estlcu

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Global Perspective

Examining Misconceptions about Plastic-Particle Exposure from Ingestion of Seafood and Risk to Human Health

Theodore B. Henry,* David G. Bucknall, Ana I. Catarino, Bronwyn M. Gillanders, Marte Haave, Norbert E. Kaminski, Carolin Völker, and Nina Wootton

Cite This: https://doi.org/10.1021/acs.estlett.5c00551

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ABSTRACT: Plastic particles (PPs; ≤5 mm diameter) are ubiquitous environmental contaminants, and concerns exist about their potential to impact human health negatively. Public perceptions about seafood contamination by PPs have been shaped by media communications rather than scientific evidence, and these perceptions can inform behavior and public policy inappropriately. Our objective is to challenge perceptions with evidence and to discuss the extent to which concerns of PP contamination of seafoods are justified. Evidence indicates that levels of PPs in seafoods are consistent with those of other foods and beverages and that human exposure to PPs is higher via indoor air and dust than by ingestion of foods and beverages. While uncertainties remain, there is currently minimal evidence of dietary toxicity of PPs and no consumption advisories for PPs. The levels of substances (e.g., toxic contaminants) associated with PPs that may be released upon PP ingestion are often orders of magnitude below levels of toxicological concern. Overattention on PP contamination of seafoods (>70% compared to all other foods combined) in scientific media communications is unjustified and must be rebalanced to avoid misconceptions and loss of beneficial health effects of seafood consumption.

KEYWORDS: *plastic particles, misconceptions, ingestion, media communications, seafood*

PLASTIC PARTICLE EXPOSURE

INTRODUCTION

The presence of contaminants in seafood can affect consumer perceptions of seafood quality and decisions about consumption. Edible tissues of finfish and shellfish can accumulate chemical contaminants, such as dioxins and methylmercury, and lead to human exposure and risk of toxicity from these substances.[1] Regulations and guidance [e.g., (EC) No. 1881/2006][2] have set maximum limits for certain contaminants in seafood, and these limits impact processing, marketing, and human consumption of these products. While these regulations are evidence-based, reports of just the presence of a contaminant in seafoods can affect consumer perceptions, even if exposure is actually minimal. Plastic debris have emerged as a contentious environmental pollutant with which seafood products, along with many other foods and beverages, can become contaminated, and this has generated concerns regarding potential for negative effects on human health.[3] However, given the beneficial health effects of seafood,[4,5] it is important that decisions about consumption are based on accurate information on the presence and impact of PPs on human health.

Because of their dimensions, particles, including plastic particles (PPs), do not behave like dissolved chemicals, and this has presented technical challenges for establishing critical aspects of toxicology including exposure, absorption, distribution, tissue accumulation, metabolism, and excretion.[6] Small PPs either deliberately manufactured or resulting from environmental fragmentation of larger pieces of plastics have been classified by their size as microplastics (between 1 μm and 5 mm; MPs) or nanoplastics (<1 μm; NPs),[6] although there is no standard definition of MPs and NPs.[7] Absorption of PPs across endothelia with distribution and accumulation within internal tissues and organs is a prerequisite for direct toxic action of particles in cells of internal tissues; however, simply the presence of PPs in the lumen of the gastrointestinal tract (i.e., if PPs are not absorbed) could negatively affect the digestive system physiology without particle absorption. Numerous substances, including chemical toxicants, have been found sorbed to MPs collected from the environment,[8−10] and plastics can also contain substances added during manufacturing (e.g., Pb)[11] that may pose a risk to health if these substances are released into the body in sufficient amounts after particle ingestion.[12]

The detection of PPs in food and beverages, their presence in human tissues, and their effects in model systems are now widely

Received: June 3, 2025
Revised: September 29, 2025
Accepted: September 29, 2025

ACS Publications

ICFA Seafood Nutrition Tool Kit

International Coalition of Fisheries Associations

Seafood-Nutrition-Toolkit

Seafood's impact on reducing cancer risk

In 2025, two independent Australian scientists (Hunt and McManus) reviewed a decade of high-quality scientific studies into the health benefits of eating seafood. **According to their report, scientific studies have shown that:**

Find the Hunt and McManus review here

Eating non-fried fish with omega-3s is associated with a **reduced risk** for several types of cancer, including: breast cancer, colorectal cancer, gastrointestinal cancer, uterine cancer, liver cancer, oesophageal and head/neck cancer, and pancreatic cancer.

- Omega-3s can **increase appetite** and nutritional status of chemotherapy patients and **lower levels of fatigue.**
- Omega-3s are important to prevent breast cancer and **help slow its development and progression.**

Eating high levels of fish can reduce risks of dying from breast cancer by **16%–34%.**

- Consumption of several types of omega-3s – eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) – is associated with **lowered risk of colorectal cancer by about 11%.**
- Eating non-fried fish with omega-3s are associated with **reducing your risk of head, neck and oesophageal cancer by 20%.**

For full detail see: Hunt W, McManus A. 2025 The health benefits of eating seafood: Evidence based science. School of Medical, Molecular and Forensic Sciences, Murdoch University, Australia and Faculty of Health Sciences, Curtin University, Australia. Report # 27032025

The Health Benefits of Eating Seafood as Part of a Healthy Diet

Beneficial Nutrients and Minerals in Seafood	Health Benefits Provided
Omega-3 fatty acids	• Essential for health (human bodies do not make them) • Essential to brain development and function • Reduces heart disease and aids blood vessel function • Helps to maintain and improve eyesight • May reduce asthma and allergies
Calcium	• Works with Vitamin D to develop and maintain strong bones • Vital for muscle, nerve and heart function • Helps to prevent osteoporosis
Iodine	• Essential for thyroid function, growth, metabolism, cellular oxygenation and maintenance of the central nervous system
Vitamin D	• Seafood is the best source of dietary Vitamin D • Improves immune function, skin condition and muscle strength • Oily fish are a rich source of Vitamin D
Iron	• Production of energy; necessary for muscle function • Facilitates blood oxygenation
Vitamin B12	• Aids DNA synthesis and normal blood function • Aids neurological function • Helps to retain cognitive function during ageing
Zinc	• Aids immunity and healing
Protein	• Repairs and maintains cells (muscles, bones, fingernails, hair) • Vital for digestive function and antibody production • Source of energy • Basis for hormones such as adrenaline
Selenium	• Prevents cellular damage • Regulates thyroid function • Supports a healthy immune function
Vitamins A and E (antioxidants)	• Important to heart and skin • Essential for nervous and circulatory systems function
Copper	• Keeps nerve cells and immune systems healthy • Helps make red blood cells • Essential for blood and nervous systems function
Manganese	• Helps form connective tissue, bones, blood and sex hormones • Helps metabolise fats and carbohydrates • Aids calcium absorption and blood sugar regulation • Essential for normal brain and nerve function
Phosphorous	• Essential for bone and teeth health • Helps filter waste from kidneys • Helps the body store and use energy • Reduces muscle pain following exercise
Taurine	• Essential for heart and brain function • Supports the nervous system and aids nerve growth • Lowers blood pressure

ICFA International Coalition of Fisheries Associations

Disclaimer: Dietary guidelines vary by location, so it's always important to refer to recommendations from your local health authority. The nutrients found in seafood vary based on species, the environment where it was caught and cooking method – frying food is not recommended for maximum nutritional benefit. The scientific evidence reviewed by Hunt and McManus supports eating at least two servings a week of seafood, one of them oily, as part of a healthy diet. For information about the studies cited, visit **bit.ly/seafood-nutrition**

2026 NFI Seafood Science & Regulatory Forum

Registration for the NFI Seafood Science and Regulatory Forum includes NFI Member admission into the NFI Technical Committee Meeting, Government & Political Update and the Importers Issues Update.

Register Now

January 18, 2026,
The Diplomat Beach Resort,
3555 S Ocean Drive
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Upcoming NFI Staff Changes

NFI Staff Changes

Lisa Weddig retiring in early 2026

Jon Woody – Chief Science Officer

Questions?

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