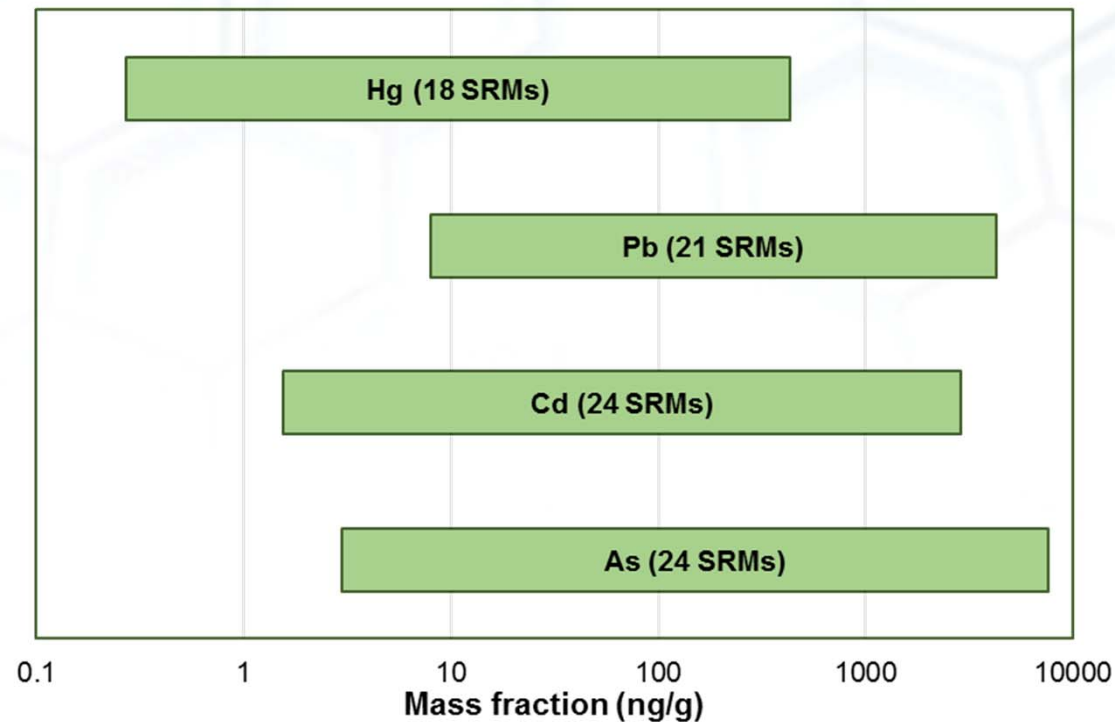


Food Safety Efforts

Heavy Metal Contamination

NIST Food SRMs for Heavy Metal Contamination



Available materials include grains, meats, and processed foods

Food SRMs

SRM 3290 Dry Cat Food													X	
SRM 3233 Fortified Breakfast Cereal													X	X
SRM 3035 Arsenic Species in Apple Juice													X ^b	
SRM 2384 Baking Chocolate														X
SRM 1947 Lake Michigan Fish Tissue													X	
SRM 1946 Lake Superior Fish Tissue													X ^a	X ^a
SRM 1577c Bovine Liver													X	X
SRM 1570a Trace Elements in Spinach Leaves													X	X
SRM 1568b Rice Flour													X ^b	X
SRM 1567b Wheat Flour													X	X
SRM 1566b Oyster Tissue													X	X ^a
SRM 1546a Meat Homogenate													X	X
	As	X	X	X	X ^b	X	X	X	X	X	X ^b	X	X	
	Cd	X	X		X	X	X	X		X		X	X	
	Hg	X	X ^a	X		X	X	X ^a	X ^a					
	Pb	X	X	X	X	X	X	X		X			X	

x^a has methylmercury values, x^b has arsenic species

Dietary Supplement SRMs

	SRM 3232 Kelp	SRM 3246 Ginkgo Biloba (Leaves)	SRM 3247 Ginkgo biloba Extract	SRM 3248 Ginkgo Containing Tablets	SRM 3254 Green Tea Leaves	SRM 3255 Green Tea Extract	SRM 3256 Green Tea-Containing Solid Oral	SRM 3262 St John's Wort Aerial Parts	SRM 3280 Multivitamin/Multielement Tablets	SRM 3252 Protein Drink Mix	SRM 3532 Calcium-Containing Solid Oral Dosage
As	x ^a		X	X	X	X	X	X	X		
Cd	X	X	X	X	X		X	X	X	X	X
Hg	X	X		X	X		X	X			
Pb	X	X	X	X	X	X	X		X	X	X

x^a has arsenic species

New SRMs and RMs

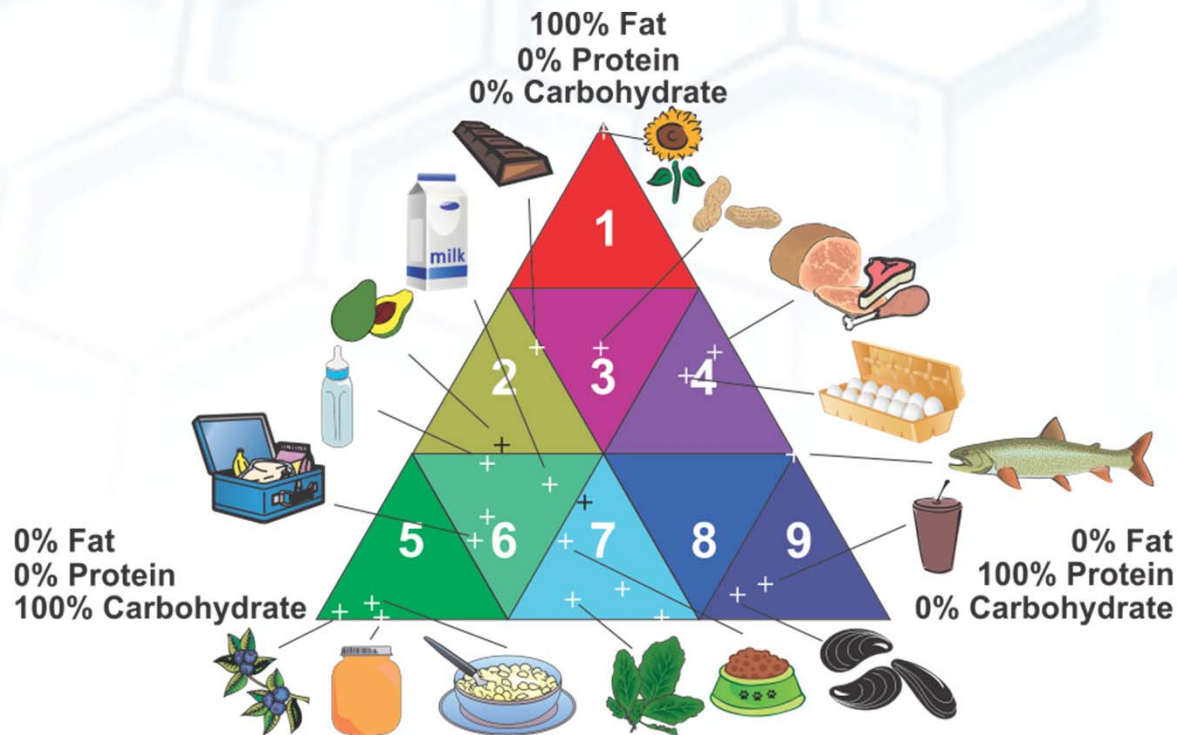
	Salmon Aquaculture	Salmon Wild Caught	Shrimp Aquaculture	Shrimp Wild Caught	SRM 1568c Rice Flour	SRM 1548b Typical Diet	SRM 2983 Geoduck Clams	SRM 3398 Ginger Rhizome
As	X	X	X	X	X ^a	X	X ^a	X ^a
Cd	X	X	X	X	X	X	?	
Hg	X	X	X	X	X		?	
Pb	X	X	X	X	X	X	?	X

X^a has arsenic species

Arsenic Standards

SRM 3030	<u>Monomethylarsonic Acid Standard Solution</u>
SRM 3031	<u>Dimethylarsinic Acid Standard Solution</u>
SRM 3033	<u>Arsenobetaine Standard Solution</u>
SRM 3034	<u>Arsenocholine Standard Solution</u>
SRM 3036	<u>Arsenic Acid (AsV) Standard Solution</u>
SRM 3037	<u>Arsenous Acid (AsIII) Standard Solution</u>
SRM 3103a	<u>Arsenic (As) Standard Solution</u>

NIST Food-Matrix SRMs



Careful selection of two foods or food products from each sector will cover the entire range of carbohydrate, protein, and fat, as well as other food attributes.

W. Ikins, et. al., "A Food Matrix Organizational System Applied to Collaborative Studies", *The Referee AOAC International*, 17(7) 1,6,7 (1993).

- 1 SRM 1588c Organics in Fish Oil
SRM 3274 Fatty Acids in Botanical Oils
SRM 3275 Fatty Acids in Fish Oils
 - 2 SRM 2384 Baking Chocolate
SRM 2386 Avocado Powder*
 - 3 SRM 2387 Peanut Butter
 - 4 SRM 1546a Meat Homogenate
SRM 1845a Whole Egg Powder
 - 5 SRM 1568b Rice Flour
SRM 2383a Baby Food Composite
SRM 3233 Fortified Breakfast Cereal
SRM 3287 Blueberries
SRM 1869 Infant/Adult Nutritional Formula II*
 - 6 SRM 1548a Typical Diet
SRM 1549a Whole Milk Powder
SRM 1849a Infant/Adult Nutritional Formula
 - 7 SRM 1566b Oyster Tissue
SRM 2385 Slurried Spinach
SRM 3234 Soy Flour
SRM 3290 Dry Cat Food
 - 9 SRM 1946 Lake Superior Fish Tissue
SRM 1947 Lake Michigan Fish Tissue
SRM 1974c Mussel Tissue
SRM 3252 Protein Drink Mix
- *in preparation