National Institute of Standards & Technology (NIST) SRM Customer Questionnaire

<SRM 1849a Infant/Adult Nutritional Formula>

NIST is conducting this survey of recent customers to better design SRM products in the future. You are receiving this questionnaire as a customer of NIST who has purchased at least one unit of <SRM 1849a Infant/Adult Nutritional Formula> in the past 5 years.

Customer Information

Laboratory Name:Click here to enter text.Laboratory Location:Click here to enter text.Respondent Name:Click here to enter text.Respondent Email:Click here to enter text.Respondent Phone:Click here to enter text.

□ I am willing to be contacted by NIST staff via email and/or phone to provide additional information.

Which of the following best describe(s) your laboratory? Check all that apply.

- □ Academic laboratory
- □ Government laboratory
- □ Food manufacturer (QA/QC) laboratory
- □ Third-party testing laboratory
- $\hfill\square$ Research and development
- □ Other (please describe): Click here to enter text.

Which of the following best describe(s) your general research area or interests? Check all that apply.

- □ Nutrition labeling
- □ Food safety/contaminants
- □ Food research (general)
- □ Dietary supplements research (general)
- □ Other (please describe): Click here to enter text.

Use of <SRM 1849a Infant/Adult Nutritional Formula>

- 1. For which of the following analytes or groups of analytes has your laboratory used <SRM 1849a Infant/Adult Nutritional Formula>? This is an all-inclusive list. Some categories may be removed if there are no assigned values in the SRM being queried.
 - □ Cholesterol
 - □ Elements
 - □ Toxic Elements/Contaminants
 - □ Water-Soluble Vitamins
 - □ Fat-Soluble Vitamins
 - \Box Carotenoids
 - □ Proximates
 - □ Fatty Acids
 - \Box Amino Acids
 - □ Sugars
 - □ Other (e.g., cholesterol, catechins, xanthines, flavonoids)

For every box selected in response to question 1, up to ten follow-up questions will be generated as described below.

a. For which of the following elements has your laboratory used <SRM 1849a Infant/Adult Nutritional Formula>? This is an all-inclusive list. Some may be removed if there are no assigned values in the SRM being queried.

Nutritional Elements

□ Calcium

□ Copper

□ Magnesium

□ Manganese

□ Phosphorus

□ Potassium

□ Sodium

 \Box Zinc

□ Iron

Other Elements □ Aluminum

- □ Antimony
 - □ Barium
- □ Boron
- □ Bromine
- □ Cerium
- □ Cesium
- □ Chlorine
- \Box Cobalt
- □ Europium
- □ Gadolinium
- \Box Gold
- □ Hafnium
- □ Hydrogen
- □ Iodine
- □ Lanthanum
- □ Lithium

- □ Neodymium
- □ Nickel
- □ Nitrogen
- □ Rubidium
- □ Samarium
- □ Scandium
- □ Silicon
- □ Silver
- □ Strontium
- □ Sulfur
- □ Terbium
- □ Thorium
- □ Tin
- □ Titanium
- □ Tungsten
- □ Uranium
- □ Vanadium
- □ Ytterbium

- □ Chromium
- □ Molybdenum

Trace Minerals

□ Selenium

- □ Fluoride

- b. For which of the following toxic elements/contaminants has your laboratory used <SRM 1849a Infant/Adult Nutritional Formula>? This is an all-inclusive list. Some may be removed if there are no assigned values in the SRM being queried.
- □ Arsenic
- \Box Cadmium
- □ Lead
- □ Mercury
- □ Dimethylarsinic acid (DMA)
- □ Inorganic arsenic (iAs)

- □ Monomethylarsonic acid (MMA)
- □ Methylmercury
- □ Acrylamide
- □ Aflatoxin B1
- □ Aflatoxin B2
- □ Total Aflatoxins
- c. For which of the following water-soluble vitamins has your laboratory used <SRM 1849a Infant/Adult Nutritional Formula>? This is an all-inclusive list. Some may be removed if there are no assigned values in the SRM being queried.
- \Box Ascorbic Acid (Vitamin C)
- □ Biotin
- 🗆 Biotin
 - □ Total Biotin by Microbiological Assay
- □ Carnitine
- □ Choline
- □ Choline Ion
- □ Folates
 - □ Folic Acid
 - □ 5-Methyltetrahydrofolate
 - □ Total Folate by Microbiological Assay
- □ Myo-inositol
- □ Riboflavin (Vitamin B₂)
- □ Thiamine/Thiamine Hydrochloride (Vitamin B₁)
- \Box Vitamin B₃
 - 🗆 Niacin
 - □ Niacinamide
 - □ Total Vitamin B₃
 - □ Total Vitamin B₃ by Microbiological Assay

- \Box Vitamin B₅
 - □ Pantothenic Acid
 - □ Total Vitamin B₅ by Microbiological Assay
- \Box Vitamin B₆
 - □ Pyridoxal/Pyridoxal Hydrochloride
 - Pyridoxamine/Pyridoxamine Dihydrochloride
 - □ Pyridoxine/Pyridoxine Hydrochloride
 - \Box Total Vitamin B₆
 - □ Total Vitamin B₆ by Microbiological Assay
- \Box Vitamin B₁₂
 - □ Cyanocobalamin
 - □ Total Vitamin B₁₂ by Microbiological Assay

d.	For which of the following fat-soluble vitamins has your laboratory used < <u>SRM 1849a</u>							
	Infant/Adult Nutritional Formula>? This is an all-inclusive list. Some may be removed if							
	there are no assigned values in the SRM being queried.							
	Vitamin A	□ Vitamin E						
	□ Retinol	\Box α -Tocopherol						
	Retinyl Palmitate	\Box α -Tocopheryl Acetate						
	Vitamin D	\Box Total α-Tocopherol						
	□ Cholecalciferol (Vitamin D ₃)	\Box β -Tocopherol						
	□ Ergocalciferol (Vitamin D ₂)	γ-Tocopherol						
	Phylloquinone (Vitamin K)	\Box γ - + β -Tocopherol						
		\Box δ -Tocopherol						
e.	For which of the following carotenoids has your laboratory used <srm 1849a="" adult<="" infant="" td=""></srm>							
	Nutritional Formula>? This is an all-inclusive list. Some may be removed if there are no							
_	assigned values in the SRM being queried.							
	α-Carotene	□ Total Lutein						
	β-Carotene	L Lycopene						
	\Box Total β -Carotene	□ <i>trans</i> -Lycopene						
	\Box <i>trans</i> - β -Carotene	□ Total Lycopene						
_	\Box 9- <i>cis</i> - β -Carotene	□ Total Zeaxanthin						
	Total β-cryptoxanthin							
ſ	For which of the following provimentes has we	our laboratory used <sdm 1040a="" a="" dult<="" infort="" td=""></sdm>						
1.	For which of the following proximates has yo	our laboratory used < SRIM 1849a Infant/Adult						
	sesigned values in the SDM being queried	e fist. Some may be removed if there are no						
	Ash	Diotary Fibor						
	Asii Calorios							
	Carbohydrates	\Box Insoluble + High Molecular Weight						
	Fat	Soluble						
	\Box Total Fat (sum of fatty acids)	□ I ow Molecular Weight Soluble						
	Total Fat (extracted)	High Molecular Weight Soluble						
	Moisture	High Molecular Weight Total						
	Solids	\square Soluble						
	Sonds							

- g. For which of the following fatty acids has your laboratory used <SRM 1849a Infant/Adult Nutritional Formula>? This is an all-inclusive list. Some may be removed if there are no assigned values in the SRM being queried.
- \Box Butryic Acid (C4:0)
- \Box Caproic Acid (C6:0)
- \Box Caprylic Acid (C8:0)
- \Box Capric Acid (C10:0)
- □ Undecanoic Acid (C11:0)
- \Box Lauric Acid (C12:0)
- □ Tridecanoic Acid (C13:0)
- □ Myristic Acid (C14:0)
- □ Myristoleic Acid (C14:1 n-5)
- □ Pentadecanoic Acid (C15:0)
- □ Palmitic Acid (C16:0)
- □ Palmitoleic Acid (C16:1 n-7)
- □ *trans*-Palmitelaidic Acid (C16:1-9t)
- □ Hexadecadienoic Acid (C16:2)
- □ Margaric Acid (C17:0)
- □ Margaroleic Acid (C17:1 n-6)
- □ Stearic Acid (C18:0)
- □ Vaccenic Acid (C18:1 n-7)
- □ Oleic Acid (C18:1 n-9)
- □ *trans*-Vaccenic Acid (C18:1-11t)
- □ Elaidic Acid (C18:1-9t)
- \Box Linoelaidic Acid (C18:2)
- □ 9,12-Octadecadienoic Acid (C18:2-9t)
- □ 9,12-Octadecadienoic Acid (C18:2-12t)
- □ Linoleic Acid (C18:2 n-6)
- \Box α -Linolenic Acid (C18:3 n-3)
- \Box γ -Linolenic Acid (C18:3 n-6)
- □ Stearidonic Acid (C18:4)
- \Box Arachidic Acid (C20:0)

- □ Gadoleic Acid (C20:1 n-7)
- □ Gondoic Acid (C20:1 n-9)
- □ Eicosadienoic Acid (C20:2 n-6)
- Dihomo-γ-linolenic Acid (C20:3 n-6)
- □ 11,14,17-Eicosatrienoic Acid (C20:3 n-3)
- □ EPA (C20:4 n-3)
- □ Arachidonic Acid (C20:4 n-6)
- □ Heneicosanoic Acid (C21:0)
- \Box Behenic Acid (C22:0)
- \Box Erucic Acid (C22:1 n-9)
- □ 13,16-Docosadienoic Acid (C22:2)
- □ DPA (C22:5 n-3)
- □ DHA (C22:6 n-3)
- □ Lignoceric Acid (C24:0)
- □ Nervonic Acid (C24:1 n-9)
- □ *cis*-Monounsaturated Fat
- □ *cis*-Polyunsaturated Fat
- □ Saturated Fat
- □ Total *cis*-C18:1
- □ Total *cis*-C18:2
- □ Total *cis*-C20:1
- □ Total *cis*-C22:4
- □ Total *cis*-C22:5
- □ Total *trans* Fat
- □ Total *trans*-C18:1
- □ Total *trans*-C18:2
- □ Total *trans*-C18:2 Conjugated
- \Box Total ω -3 Fatty Acids
- \Box Total ω -6 Fatty Acids

	Alanine	\square H	Iydroxyproline		Proline		
	Arginine		soleucine		Serine		
	Aspartic Acid	ΠL	-theanine		Taurine		
	Cystine	\Box L	eucine		Threonine		
	Glutamic Acid	\Box L	ysine		Tryptophan		
	Glycine	\square N	Iethionine		Tyrosine		
	Histidine	🗆 P	henylalanine		Valine		
			1 11 . 1				
1.	For which of the following sugars has your laboratory used <srm 1849a="" adult<="" infant="" td=""></srm>						
	Nutritional Formula ^{>} ? This	e removed if there are no					
	assigned values in the SRM		queriea.				
	Chasses		actose		Sucrose		
	Glucose		laitose		1 otal Sugars		
j.	For which of the following other analytes has your laboratory used \leq SRM 1849a						
5	Infant/Adult Nutritional For	mula>	? This is an all-inclusive	list.	Some may be removed if		
	there are no assigned values	in the	SRM being queried.		5		
	Anions		Glycitein		Phytosterols		
	□ Phosphate		Glycitin		□ Campesterol		
	\Box Sulfate	ΠF	lavonoid Aglycones		\square β-Sitosterol		
	Catechins] Ouercetin		□ Stigmasterol		
	□ Catechin] Kaempferol		□ Cvcloartenol		
	□ Catechin Monomers] Isorhamnetin		□ Brassicasterol		
	□ Epicatechin] Total		Lupeol		
	Epicatechin Gallate	\square N	laphthodianthrones		Xanthines		
	□ Epigallocatechin		Hvpericin		□ Caffeine		
	□ Epigallocatechin] Pseudohypericin		□ Theobromine		
	Gallate		Organic Acids		□ Theophylline		
	□ Gallocatechin Gallate		Ascorbic Acid		□ L-theanine		
	□ Gallic Acid		Citric Acid		Terpene Lactones		
	□ Gallocatechin		Galacturonic Acid		Ginkgolide A		
	Epigallocatechin		Glycolic Acid		□ Ginkgolide B		
	Methylgallate		Isocitric Acid		□ Ginkgolide C		
	Cholesterol] Malic Acid		□ Ginkgolide J		
	Isoflavones		Oxalic Acid		□ Bilobalide		
	Daidzein		Quinic Acid		Total Antioxidant Capacity		
	Daidzin		Shikimic Acid		Total Polyphenols		
	□ Genistein] Tartaric Acid		Total Procyanidins		
	□ Genistin				-		

h. For which of the following amino acids has your laboratory used <SRM 1849a Infant/Adult Nutritional Formula>? This is an all-inclusive list. Some may be removed if there are no

assigned values in the SRM being queried.

2. Please list any other analytes or analyte groups that would be beneficial to have assigned in <<u>SRM 1849a Infant/Adult Nutritional Formula</u>>. Click here to enter text.

- 3. Please describe other ways that <SRM 1849a Infant/Adult Nutritional Formula> could better suit your needs. Click here to enter text.
- 4. Please describe other ways that <SRM 1849a Infant/Adult Nutritional Formula> could better suit your needs. Click here to enter text.

The coordinators of the NIST Food and Nutrition Reference Materials Program thank you for your participation in this questionnaire.

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