



Canadian Food
Inspection Agency

Agence canadienne
d'inspection des aliments

Children's Food Project - Annual report

2019



Summary

The Canadian Food Inspection Agency (CFIA) uses a number of different monitoring programs for chemical residues and contaminants in food to ensure that the food supply is safe and compliant with Canadian standards. The Children's Food Project (CFP) complements these activities by specifically collecting information on chemical residues and contaminants in manufactured foods frequently consumed by, and targeted to, infants and children. Because of their smaller body weight, their development and growth, and their consumption patterns this group may be at higher risk from exposure to these chemicals.

The main objectives of the 2019 CFP were to:

- collect data and assess the compliance of infant foods to Canadian standards for residues of pesticides and metals/elements
- collect data and assess the compliance of dairy-based infant formula for melamine

Previous years have analyzed pesticides, metals/elements, veterinary drug residues, aflatoxin M1 and environmental contaminants.

In the 2019 CFP, a total of 298 samples of infant and toddler foods were purchased in the Ottawa, Ontario and Gatineau, Quebec areas in August and September, 2019. These samples included:

- infant cereals
- fruit and vegetable purees
- infant and toddler snacks
- dairy-based infant formula
- yogurt and yogurt beverages

All samples were analyzed for pesticide residues. Metals/elements were tested in all samples except for dairy-based infant formula (as these were tested in the previous year). Dairy-based infant formula was analyzed for melamine.

The overall compliance rate of the infant and toddler food samples tested for pesticides was 99.7%. 230 out of a total of 298 samples tested did not contain any detectable pesticide residues. 1 sample was not compliant with Canadian regulations and was evaluated by Health Canada (HC), but was not considered a safety risk.

Approximately 53.4% of the 251 samples tested did not contain detectable levels of metals/elements of concern (arsenic, cadmium, lead and mercury). At the time of this survey, there were no maximum levels (MLs) for metals/elements set by HC for the products tested. The levels of metals/elements were reviewed by HC and none of the levels were considered a safety risk.

Of the 47 dairy infant formula samples tested, only 1 sample (2.1%) contained a detectable level of melamine of 0.258 ppm which is below the ML of 0.5 ppm.

Data obtained from surveillance programs like the CFP are useful in the assessment of the dietary exposure of Canadian children to pesticide residues, veterinary drug residues, metals/elements, aflatoxin M1, and other chemical contaminants (for example, melamine) in infant foods. All data was reviewed by HC and no health risk was identified to Canadian infants and toddlers in any of the foods tested.

What is the children's food project

The CFP began in 2003 to look at levels of pesticide residues and metals/elements in foods for infants and children. Because of their smaller body weight, their development and growth, and their consumption patterns, this group may be at higher risk from exposure to these chemicals.

The CFIA uses a number of different monitoring programs to ensure that the food supply is safe and compliant with Canadian standards. The CFP complements these activities by specifically collecting information on domestically produced and imported manufactured foods frequently consumed by and targeting children (for example, infant formula, cereal-based products, fruit juices and beverages). Together, the data from these programs help health authorities assess potential exposure to chemical residues and contaminants in a number of foods consumed by Canadian children.

The main objectives of the 2019 CFP were to:

- collect data and assess the compliance of infant foods to Canadian standards for residues of pesticides and metals/elements
- collect data and assess the compliance of dairy-based infant formula for melamine

What did we sample

In total, 298 domestic and imported infant foods were sampled from retail stores located in Ottawa, Ontario and Gatineau, Quebec in August and September, 2019. Of the 298 samples, 150 were labelled as organic. Both imported and domestically-produced foods were sampled with 72 products manufactured in Canada, 178 imported from other countries and 48 products from an unknown country of origin.

Table 1: Breakdown of products sampled in 2019

Infant food	Number of domestic samples	Number of import samples	Number of samples from unspecified origin ^a	Total number of samples
Infant cereals	12	36	0	48
Fruit and vegetable purees	24	55	19	98
Infant/toddler snacks (for example, cookies, puffs, bars)	20	41	17	78
Dairy-based infant formula	1	46	0	47
Yogurt	10	0	6	16
Yogurt beverages	5	0	6	11
Total	72	178	48	298

^a Unspecified refers to those samples for which a country of origin could not be assigned from the product label or available sample information

Sampling limitations

Due to the limited number of samples and products analyzed, care must be taken when interpreting these results. Regional differences, impact of product shelf-life, storage conditions, or cost of the commodity on

the open market were not examined in this survey. Samples were tested as sold, which means the product was tested as is and not prepared according to package instructions.

How were samples analyzed and assessed

Analytical testing for the various types of analytes was performed by an ISO/IEC 17025 accredited food testing laboratory under contract with the Government of Canada.

Pesticide analysis

The samples were tested for a range of pesticide residues which are commonly used in farming to control insects, fungus, and weeds. Phenoxy herbicides, glyphosate and diquat/paraquat were not tested in dairy-based infant formula samples. A [summary of the pesticide residues analyzed](#) can be found in Appendix A.

Metal/Elemental analysis

Many metals or elements are present in food due to their natural occurrence in the environment, but they could also be present due to the use of pesticides, agricultural chemicals, environmental contamination or processing. The focus of this report will be on 4 elements of primary concern to human health, which are:

- arsenic
- cadmium
- lead
- mercury

Melamine analysis

Dairy-based infant formula samples were tested for melamine. Melamine is not permitted as a food ingredient, however, low levels of melamine can be found in food due to its use in pesticides and fertilizers or other industrial purposes¹.

Assessment of results

All results from samples tested in this survey were evaluated against Canadian standards established by HC. Compliance is assessed against the established tolerances available when the survey was carried out. For pesticides, the maximum residue limit (MRL) is the maximum amount of residues that is expected to remain in or on food products when a pesticide is used according to product label directions. For metals/elements and melamine, the ML is the maximum level of a contaminant that could safely remain in food products.

Canadian pesticide MRLs are listed in the [maximum residue limit database](#)² published on the HC website. In the absence of an MRL, pesticide residues must comply with the general MRL of 0.1 ppm as stated in [section B.15.002 \(1\) of the Food and Drug Regulations](#)³.

MLs for metals/elements in food are found in the [list of contaminants and other adulterating substances in foods](#)⁴. At the time of this survey, HC did not have established MLs for arsenic, cadmium, mercury or lead for any of the products tested in this survey. HC reviews all metals results from the CFP to determine if there is any health risk to infants and children.

The ML for melamine in infant formula is 0.5 ppm found on [Health Canada's maximum levels for chemical contaminants in foods](#)⁵.

What were the results

Pesticides

All 298 samples taken as part of the survey were tested for pesticides. No detectable levels of pesticide residues were found in 77.2% of the infant foods tested (230 samples). The results from the remaining 68 samples were 98.5% compliant with Canadian regulations. Only 1 sample (cookies) was unsatisfactory for pesticides. MGK-264, also known as zengxiaoan, was found in 1 sample with a level of 0.873 ppm, which exceeds the general MRL of 0.1 ppm. It is commonly mixed with pyrethrins or pyrethroid insecticides to increase their effectiveness⁶. This sample was followed up by Operations and no other product was affected. Company procedures were reviewed and were compliant. The result was reviewed by HC and determined to be safe for children and infants.

In this study, 150 of the 298 samples were labelled as “organic”. There were no pesticide residues detected in 82.7% (124 samples) of organic products tested. All 26 remaining samples with detected levels of pesticide were below Canadian MRLs. All organic pesticide residue results were sent to the CFIA Organics office for review.

Metals/Elements

A total of 251 samples were tested for metals/elements and 53.4% did not have detected levels for arsenic, cadmium, lead and mercury. Dairy infant formula samples were not tested for metals/elements in 2019 as this was tested in the previous year. All metal/element results were sent to HC's Bureau of Chemical Safety for review and samples were considered safe for children and infants.

A [summary of metal/element results](#) can be found in Appendix B.

Arsenic

Arsenic is an element that naturally occurs in the earth's crust and can be found as organic arsenic (compounds containing carbon atoms) and inorganic arsenic (free arsenic ions). In general, inorganic arsenic is more toxic to humans than organic arsenic. Long-term exposure to high levels of inorganic arsenic is known to contribute to the risk of human cancer and can affect the gastrointestinal tract, kidneys, liver, lungs and skin⁷. For most Canadians, the primary source of exposure to arsenic is food, followed by drinking water, soil and air⁸.

At the time of this survey, there were no MLs set for arsenic in rice or in infant foods. MLs for inorganic arsenic in polished (white) rice (0.2 ppm) and husked (brown) rice (0.35 ppm) were established after this survey was completed⁴. HC will be adding a ML of 0.1 ppm for inorganic arsenic in rice-based foods intended for infants and young children as noted in the [notice of proposal](#)⁹.

A total of 19.5% (49 samples) of samples had detected levels of total arsenic (includes both organic and inorganic forms). Results ranged from 0-0.33 ppm with highest levels in rice-based infant/toddler snacks.

Cadmium

Cadmium can be present in water and soil through the use of phosphate fertilizers or sewage sludge. Food grown in cadmium containing soils is the primary source of cadmium exposure in the general population¹⁰. Kidneys and bones are affected by cadmium toxicity¹⁰.

A total of 34.7% (87 samples) of samples had detected levels of cadmium.

Lead

Lead exposure may occur from a number of environmental and food sources. Chronic exposure to low levels of lead can be harmful to human health. Lead occurs naturally in the environment and has many industrial uses, such as in mining, smelting and battery manufacturing¹¹. The greatest sources of a child's environmental exposure to lead are oral exposure from food and water along with ingestion of house dust and soil contaminated with lead¹¹.

A total of 7.6% (19 samples) of samples had detected levels of lead.

Mercury

Mercury is released naturally from rocks, soils and volcanoes. Industrial activities have also increased the amount of mercury in the environment¹². Mercury contamination is a concern because it is toxic, persists in the environment, and can bio-accumulate in the food chain. The health effects of mercury depend on its chemical form (elemental, inorganic, organic), the route and level of exposure¹². Methylmercury is the more toxic organic form is easily absorbed and can cross the blood-brain barrier¹². Children and the developing fetus are particularly susceptible to the harmful effects of methylmercury.

A total of 14.7% (37 samples) of samples had detected levels of mercury.

Melamine

Melamine is a synthetic chemical used for industrial purposes such as fertilizers, pesticides, cleaning products and resins and foam production¹. Melamine is not allowed as a food ingredient, however, it can be found in food at low levels due to its use in industrial purposes and is not considered a health risk¹. Health effects from high levels of melamine can cause bladder stones and chronic kidney inflammation and more extreme cases can lead to kidney failure and death¹³. Exposure to low levels of melamine for long periods of time do not pose a significant health risk¹³. Of the 47 dairy-based infant formula samples, only 1 sample (2.1%) contained a level of melamine of 0.258 ppm, which is below the ML of 0.5 ppm.

Conclusion

The results of the CFP were shared with HC and they determined that none of the samples tested posed a health risk to Canadian infants or children. Organic sample results were shared with the CFIA Organics office. There were no product actions or recalls resulting from this sampling and testing on the basis of health risk. The infant foods tested in this survey, whether domestically produced or imported, are safe for consumption.

CFIA is committed to ensuring a safe food supply for all Canadians, including the vulnerable populations such as infants and young children. In the coming year, pesticide residues, toxic metals/elements (arsenic, cadmium, mercury and lead), veterinary drug residues and aflatoxin M1 will be examined in samples of cereals, infant/toddler snacks, fruit snacks, yogurts and puddings.

References

1. [Melamine](#). 2016. Canada. Health Canada.
2. [Maximum Residue Limits for Pesticides](#). 2012. Canada. Health Canada.
3. [Food and Drug Regulations](#). 2021. Canada. Justice Laws.
4. [List of contaminants and other adulterating substances in foods](#). 2020. Canada. Health Canada.
5. [Health Canada's Maximum Levels for Chemical Contaminants in Foods](#). 2020. Canada. Health Canada.
6. [MGK-264 General Fact Sheet](#). 2016. USA. National Pesticide Information Center.
7. [Arsenic](#). 2008. Canada. Health Canada.
8. [Arsenic in Drinking Water](#). 2006. Canada. Health Canada.
9. [Health Canada's Proposal to Add a Maximum Level for Inorganic Arsenic in Rice-based Foods Intended Specifically for Infants and Young Children](#). 2021. Canada. Health Canada.
10. Scientific Opinion of the Panel on Contaminants in the Food Chain on a Request from the European Commission on Cadmium in Food. 2009. The EFSA Journal, 980, pp. 1-139.
11. [Final Human Health State of Science Report on Lead](#). 2013. Canada. Health Canada.
12. [Mercury and Human Health](#). 2008. Canada. Health Canada.
13. [Background Information on Melamine](#). 2014. Canada. Health Canada.

Appendix A: List of pesticides

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

- 1-naphthol
- 2,3,5,6-Tetrachloroaniline
- 2,4-D
- 2,6-diisopropyl-naphthalene
- 3-hydroxyCarbofuran
- 5-hydroxythiabendazole

A

- Abamectin
- Acephate
- Acetamiprid
- Acetochlor
- Acibenzolar-s-methyl
- Aclonifen
- Acrinathrin
- Alachlor
- Aldicarb
- Aldicarb sulfone
- Aldicarb sulfoxide
- Aldrin
- Allethrin-d-trans
- Allidochlor
- Ametryn
- Aminocarb (Aminomethyl) phosphonic acid
- Anilofos
- Aramite
- Aspon
- Atrazine
- Atrazine-desethyl
- Azaconazole
- Azinphos-ethyl
- Azinphos-methyl
- Azoxystrobin

B

- Benalaxyl
- Bendiocarb
- Benfluralin
- Benodanil
- Benomyl
- Benoxacor
- Bensulide
- Benzoylprop-ethyl
- BHC-alpha
- BHC-beta
- Bifenazate
- Bifenox
- Bifenthrin
- Biphenyl
- Bitertanol
- Boscalid
- Bromacil
- Bromophos
- Bromophos-ethyl
- Bromopropylate
- Bromuconazole
- Bufencarb
- Bupirimate
- Buprofezin
- Butachlor
- Butafenacil
- Butocarboxim
- Butocarboxim sulfoxide
- Butralin
- Butylate

C

- Cadusafos
- Captafol
- Captan

- Carbaryl
- Carbazim/Thiophanate Methyl
- Carbetamide
- Carbofenthion
- Carbofuran
- Carbosulfan
- Carboxin
- Carfentrazone-ethyl
- Chlorantraniliprole
- Chlorbenside
- Chlorbromuron
- Chlorbufam
- Chlordane-cis
- Chlordane-trans
- Chlordimeform
- Chlorfenapyr
- Chlorfenson
- Chlorfenvinphos (e+z)
- Chlorfluazuron
- Chlorflurenol-methyl
- Chloridazon
- Chlorimuron-ethyl
- Chlormephos
- Chlorobenzilate
- Chloroneb
- Chloropropylate
- Chlorothalonil
- Chloroxuron
- Chlorpropham
- Chlorpyrifos
- Chlorpyrifos-methyl
- Chlorthal-dimethyl (Dacthal)
- Chlorthiamid
- Chlorthion
- Chlorthiophos
- Chlortoluron
- Chlozolate
- Clodinafop-propargyl
- Clofentezine
- Clomazone
- Cloquintocet-mexyl
- Clothianidin
- Coumaphos
- Crotoxyphos
- Crufomate
- Cyanazine
- Cyanofenphos
- Cyanophos
- Cyazofamid
- Cycloate
- Cycloxydim
- Cycluron
- Cyfluthrin (I,II,III,IV)
- Cyhalothrin-lambda
- Cypermethrin
- Cyprazine
- Cyproconazole
- Cyprodinil
- Cyromazine

D

- DDT plus metabolites
- Deltamethrin / Tralomethrin (Total)
- Demeton-O
- Demeton-S
- Demeton-s Methyl (total)
- Demeton-s-methyl sulfone
- Demeton-s-methyl sulfoxide
- Desmedipham
- Desmetryn
- Di-allate
- Dialofos
- Diazinon
- Diazinon o analogue
- Dichlobenil
- Dichlofenthion
- Dichlofluanid
- Dichlormid
- Dichlorvos
- Diclobutrazole
- Diclocymet
- Diclofop-methyl
- Dicloran
- Dicofol
- Dicrotophos
- Dieldrin
- Diethatyl-ethyl
- Diethofencarb
- Difenoconazole
- Diflubenzuron
- Dimethachlor
- Dimethametryn
- Dimethoate
- Dimethomorph
- Dimetilan
- Dimoxystrobin
- Diniconazole
- Dinitramine
- Dinotefuran
- Dioxacarb
- Dioxathion
- Diphenamid
- Diphenylamine
- Dipropetryn
- Diquat
- Disulfoton
- Disulfoton sulfone
- Diuron

- Dodemorph

E

- Edifenphos
- Emamectin (Total)
- Endosulfan sulfate
- Endosulfan-alpha
- Endosulfan-beta
- Endrin
- EPN
- Epoxiconazole
- EPTC
- Erbon

F

- Famoxadone
- Fenamidone
- Fenamiphos
- Fenamiphos sulfone
- Fenamiphos sulfoxide
- Fenarimol
- Fenazaquin
- Fenbuconazole
- Fenchlorphos (Ronnell)
- Fenfuram
- Fenhexamid
- Fenitrothion
- Fenobucarb
- Fenoxanil
- Fenoxycarb
- Fenpropathrin
- Fenpropidin
- Fenpropimorph

G

- Glyphosate

H

- Haloxyfop

- Dodine

- Etaconazole
- Ethalfluralin
- Ethiofencarb
- Ethiofencarb sulfone
- Ethiofencarb sulfoxide
- Ethiolate
- Ethion
- Ethiprole
- Ethirimol

- Fenpyroximate
- Fenson
- Fensulfothion
- Fenthion
- Fentrazamide
- Fenvalerate & Esfenvalerate
- Fipronil
- Fipronil sulfone
- Flamprop-isopropyl
- Flamprop-methyl
- Flonicamid
- Fluazifop-butyl
- Flubendiamide
- Flucarbazone-sodium
- Fluchloralin
- Flucythrinate
- Fludioxonil
- Flufenacet
- Flumetralin

- Griseofulvin

- Heptachlor

- Ethofumesate
- Ethoprop
- Ethoxyquin
- Ethylan
- Etofenprox
- Etoxazole
- Etridiazole
- Etrimfos

- Flumioxazin
- Fluopicolide
- Fluorochloridone
- Fluorodifen
- Fluoxastrobin
- Fluquinconazole
- Fluridone
- Flusilazole
- Flutolanil
- Flutriafol
- Fluvalinate
- Fluxapyroxad
- Folpet
- Fonofos
- Forchlorfenuron
- Formetanate
- Fosthiazate
- Fuberidazole
- Furathiocarb

- Heptachlor epoxide endo
- Heptachlor epoxide exo

I

- Imazalil
- Imazamethabenzmethyl
- Imazethapyr
- Imidacloprid
- Indoxacarb
- Iodofenphos
- Ipconazole

- Heptenophos
- Hexachlorobenzene
- Hexaconazole

- Hexazinone
- Hexythiazox

- Iprobenfos
- Iprodione
- Iprovalicarb
- Isazophos
- Isocarbamide
- Isocarbophos
- Isofenphos
- Isofenphos-methyl

- Isoprocarb
- Isopropalin
- Isoprothiolane
- Isoproturon
- Isoxadifen-ethyl
- Isoxathion

K

- Kresoxim-methyl

L

- Leptophos

- Lindane (gamma-BHC)

- Linuron
- Lufenuron

M

- Malaaxon
- Malathion
- Mandipropamid
- MCPD
- Mecarbam
- Mepanipyrim
- Mephosfolan
- Metaconazole
- Metalaxyl
- Metazachlor
- Methabenzthiazuron
- Methamidophos
- Methidathion

- Methiocarb
- Methiocarb sulfone
- Methiocarb Sulfoxide
- Methomyl
- Methoprene
- Methoprotryne
- Methoxychlor
- Methoxyfenozide
- Methyl Pentachlorophenyl sulphide
- Methyl trithion
- Metobromuron

- Metolachlor
- Metolcarb
- Metosulam
- Metoxuron
- Metribuzin
- Mevinphos (Total)
- Mexacarbate
- Mirex
- Molinate
- Monocrotophos
- Monolinuron
- Myclobutanil

N

- Naled
- Napropamide

- Naptalam
- Neburon

- Nicotine
- Nitalin

- Nitrapyrin
- Nitrofen
- Nitrothal-isopropyl

- Nonachlor-cis
- Nonachlor-trans
- Norflurazon

- Norflurazon desmethyl
- Novaluron
- Nuarimol

O

- o,p'-DDD (o,p'-TDE)
- o,p'-DDE
- o,p'-DDT
- Octhilinone
- Ofurace

- Omethoate
- Ortho-phenylphenol
- Oxadiazon
- Oxadixyl
- Oxamyl

- Oxamyl-oxime
- Oxycarboxin
- Oxychlordane
- Oxyfluorfen

P

- Pesticide Screen
- Phenoxo Herbicides Screen
- p,p'-DDD (p,p'-TDE)
- p,p'-DDE
- p,p'-DDT
- Paclobutrazol
- Paraoxon
- Paraquat
- Parathion
- Parathion-methyl
- Pebulate
- Penconazole
- Pencycuron
- Pendimethalin
- Penoxsulam
- Pentachloroaniline
- Pentachlorobenzene
- Pentachlorobenzonit rile
- Permethrin (Total)
- Phenmedipham
- Phenthoate
- Phorate

- Phorate sulfone
- Phorate sulfoxide
- Phosalone
- Phosmet
- Phosphamidon
- Picolinafen
- Picoxystrobin
- Pinoxaden
- Piperonyl butoxide
- Piperophos
- Pirimicarb
- Pirimiphos-ethyl
- Pirimiphos-methyl
- Prallethrin
- Pretilachlor
- Primisulfuron-methyl
- Prochloraz
- Procymidone
- Prodiamine
- Profenofos
- Profluralin
- Promecarb
- Prometon
- Prometryne

- Pronamide
- Propachlor
- Propanil
- Propargite
- Propazine
- Propetamphos
- Propham
- Propiconazole
- Propoxur
- Prothiophos
- Pymetrozine
- Pyracarbolid
- Pyraclostrobin
- Pyraflufen-ethyl
- Pyrazophos
- Pyridaben
- Pyridalyl
- Pyridaphenthion
- Pyridate
- Pyrifenox
- Pyrimethanil
- Pyriproxyfen
- Pyroquilon
- Pyroxsulam

Q

- Quinalphos
- Quinomethionate

- Quinoxifen
- Quintozene

- Quizalofop
- Quizalofop-ethyl

R

- Resmethrin

S

- Schradan
- Secbumeton
- Sethoxydim
- Simazine
- Simeconazole
- Simetryn

- Spinetoram
- Spinosyn A+D
- Spirodiclofen
- Spiromesifen
- Spirotetramat
- Spiroxamine

- Sulfallate
- Sulfentrazone
- Sulfotep
- Sulfoxaflor
- Sulprophos

T

- TCMTB
- Tebuconazole
- Tebufenozide
- Tebufenpyrad
- Tebupirimfos
- Tecnazene
- Tepraloxydim
- Terbacil
- Terbufos
- Terbumeton
- Terbutryne
- Terbutylazine
- Tetrachlorvinphos
- Tetraconazole
- Tetradifon
- Tetraiodoethylene
- Tribufos
- Trichlorfon
- Triclosan
- Tricyclazole
- Trietazine
- Trifloxystrobin
- Trifloxysulfuron
- Triflumizole
- Trifluralin

- Tetramethrin
- Tetrasul
- Thiabendazole
- Thiacloprid
- Thiamethoxam
- Thiazopyr
- Thiobencarb
- Thiodicarb Triforine
- Trimethacarb
- Triphenyl phosphate
- Tris (1,3-Dichloroisopropyl) Phosphate
- Tris(2-butoxyethyl) Phosphate

- Tris(2-chloroethyl) Phosphate
- Tris(chloropropyl) Phosphate
- Thiofanox
- Thiofanox sulfone
- Thiofanox sulfoxide
- Thiophanate-methyl
- Tolclofos-methyl
- Tolfenpyrad
- Tolyfluanid
- Tralkoxydim
- Triadimefon
- Triadimenol
- Tri-allate
- Triazophos

V

- Vernolate
- Vinclozolin

Z

- Zengxiaoan
- Zinophos
- Zoxamide



Appendix B: Metals results found in infant foods

Metal analyte	Product type	Total number of samples	Total number negative	Total number positive	Minimum (ppm)	Maximum (ppm)	Mean (ppm)
Aluminum	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	5	43	0	20.3	5.22
	Infant Food - Puree	98	14	84	0	4.82	1.36
	Infant Food - Snack	78	5	73	0	24.8	3.85
	Yogurt	16	13	3	0	7.19	0.55
Antimony	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	48	0	0	0	0
	Infant Food - Puree	98	98	0	0	0	0
	Infant Food - Snack	78	78	0	0	0	0
	Yogurt	16	16	0	0	0	0
Arsenic	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	31	17	0	0.183	0.02
	Infant Food - Puree	98	97	1	0	0.056	0.001
	Infant Food - Snack	78	47	31	0	0.33	0.03
	Yogurt	16	16	0	0	0	0
Beryllium	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	48	0	0	0	0
	Infant Food - Puree	98	98	0	0	0	0
	Infant Food - Snack	78	78	0	0	0	0
	Yogurt	16	16	0	0	0	0
Boron	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	0	48	0.63	11.4	2.10
	Infant Food - Puree	98	0	98	0.46	8.7	2.48
	Infant Food - Snack	78	2	76	0	9.67	1.81
	Yogurt	16	12	4	0	2.14	0.28

Cadmium	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	13	35	0	0.049	0.02
	Infant Food - Puree	98	97	1	0	0.021	0.0002
	Infant Food - Snack	78	27	51	0	0.068	0.01
	Yogurt	16	16	0	0	0	0
Chromium	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	18	30	0	0.29	0.10
	Infant Food - Puree	98	83	15	0	0.34	0.02
	Infant Food - Snack	78	64	14	0	0.25	0.03
	Yogurt	16	16	0	0	0	0
Copper	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	1	47	0	7.6	3.37
	Infant Food - Puree	98	82	16	0	1.9	0.21
	Infant Food - Snack	78	12	66	0	6.3	2.02
	Yogurt	16	14	2	0	2.1	0.23
Iron	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	0	48	189	420	329.31
	Infant Food - Puree	98	18	80	0	12.2	3.40
	Infant Food - Snack	78	0	78	2.1	833	62.76
	Yogurt	16	14	2	0	7.6	0.86
Lead	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	37	11	0	0.093	0.01
	Infant Food - Puree	98	97	1	0	0.015	0.0002
	Infant Food - Snack	78	71	7	0	0.04	0.0025
	Yogurt	16	16	0	0	0	0
Magnesium	Beverage - Yogurt	11	11	0	67.2	123	100.15
	Infant Food - Cereal	48	48	0	405	2620	1274.58
	Infant Food - Puree	98	98	0	41.2	311	141.46

	Infant Food - Snack	78	78	0	35.7	2310	568.98
	Yogurt	16	16	0	98.7	374	149.86
Manganese	Beverage - Yogurt	11	9	2	0	0.19	0.03
	Infant Food - Cereal	48	0	48	4.45	58.6	24.97
	Infant Food - Puree	98	0	98	0.22	5.78	1.48
	Infant Food - Snack	78	2	76	0	57.8	11.81
	Yogurt	16	7	9	0	3.04	0.50
Mercury	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	44	4	0	0.0015	0.00008
	Infant Food - Puree	98	95	3	0	0.0049	0.00007
	Infant Food - Snack	78	48	30	0	0.0065	0.00052
	Yogurt	16	16	0	0	0	0
Molybdenum	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	1	47	0	3.66	1.02
	Infant Food - Puree	98	93	5	0	0.29	0.011
	Infant Food - Snack	78	7	71	0	2.32	0.45
	Yogurt	16	15	1	0	0.15	0.0094
Nickel	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	2	46	0	5.25	1.27
	Infant Food - Puree	98	34	64	0	0.353	0.092
	Infant Food - Snack	78	11	67	0	1.51	0.39
	Yogurt	16	13	3	0	0.212	0.028
Selenium	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	14	34	0	0.943	0.17
	Infant Food - Puree	98	98	0	0	0	0
	Infant Food - Snack	78	39	39	0	1.11	0.095
	Yogurt	16	12	4	0	0.085	0.019
Tin	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	48	0	0	0	0

	Infant Food - Puree	98	98	0	0	0	0
	Infant Food - Snack	78	76	2	0	0.57	0.015
	Yogurt	16	16	0	0	0	0
Titanium	Beverage - Yogurt	11	11	0	0	0	0
	Infant Food - Cereal	48	4	44	0	4.27	1.14
	Infant Food - Puree	98	95	3	0	0.33	0.008
	Infant Food - Snack	78	47	31	0	1.1	0.16
	Yogurt	16	15	1	0	4.97	0.31
Zinc	Beverage - Yogurt	11	0	11	2.65	5.42	3.70
	Infant Food - Cereal	48	0	48	9.28	76.9	27.60
	Infant Food - Puree	98	16	82	0	7.79	1.49
	Infant Food - Snack	78	0	78	0.82	147	13.12
	Yogurt	16	0	16	3.34	6.86	4.84