

# Children's Food Project – Annual Report 2021





# 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 collecting information specifically 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 a higher risk from exposure to these chemicals.

The main objectives of the 2021 CFP were to:

• collect data and assess the compliance of infant foods to Canadian standards for residues of pesticides and metals/elements

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

In the 2021 CFP, a total number of 294 samples of children's foods were purchased in Ottawa, Ontario and Gatineau, Quebec in October, 2021. These samples included:

- fruit and vegetable purees
- infant and toddler meals
- canned and dry pasta
- juice

There were 291 samples analyzed for pesticide residues and metals/elements, and three samples were analyzed for pesticide residues only.

The overall compliance rate of the children's food samples tested for pesticides was 100%. Of the 294 samples tested, 217 samples did not contain any detectable pesticide residues. Detectable pesticide residues were found in 77 samples and all were compliant with Canadian regulations. The results were evaluated by Health Canada (HC) and determined not to be a safety risk.

Approximately 79.0% (230) of the samples tested (291) did not contain detectable levels of metals/elements of concern (arsenic, cadmium, lead and mercury). At the time of this survey, the maximum levels (MLs) for arsenic related to the products tested, included inorganic arsenic in husked (brown) rice (0.35 parts-per-million (ppm)), polished (white) rice (0.2 ppm) and total arsenic in fruit juice (0.1 ppm). The ML for lead in fruit juice is 0.05 ppm. No juice samples tested contained detectable levels of arsenic or lead. The levels of metals/elements found were reviewed by HC and none of the levels were considered a safety risk.

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Data obtained from surveillance programs like the CFP are useful in the assessment of the dietary exposure of Canadian children to pesticide residues and metals/elements. 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 2021 CFP were to:

 collect data and assess the compliance of infant foods to Canadian standards for residues of pesticides and metals/elements

# What did we sample

In total, 294 domestic and imported infant foods were sampled from retail stores in Ottawa, Ontario and Gatineau, Quebec in October, 2021. Of the 294 samples, 166 were labelled as organic. Both imported and domestically-produced foods were sampled with 93 products manufactured in Canada, 125 imported from other countries and 76 products from an unknown country of origin.

Infant food	Number of domestic samples	Number of imported samples	Number of samples of unspecified origin <sup>a</sup>	Total number of samples
Fruit and vegetable				
purees	31	64	30	125
Infant and toddler				
meals	19	26	8	53
Canned and dry			1	
pasta	4	32	12	48
Juice	39	3	26	68

#### Table 1: Breakdown of products sampled in 2021

Grand total		93	125	76	294			
al home officed reference to these complex for which the country of origin could not be								

<sup>a</sup>Unspecified refers to those samples for which the 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

All samples were tested for a range of pesticide residues which are commonly used in farming to control insects, fungus, and weeds. A <u>summary of the pesticide residues analyzed</u> can be found in Appendix A.

#### Metal/elemental analysis

291 samples were analyzed for metals/elements. Many metals or elements are present in food due to their natural occurrence in the environment, however 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

#### 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, the ML is the maximum level of a contaminant that could safely remain in food products.

Canadian pesticide MRLs are listed in the <u>Maximum Residue Limit Database</u><sup>1</sup> 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 <u>section B.15.002 (1) of the Food and Drug Regulations</u><sup>2</sup>.

MLs for metals/elements in food are found in the <u>list of contaminants and other adulterating</u> <u>substances in foods</u><sup>3</sup>. At the time of this survey, HC did not have established MLs for cadmium or mercury 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.

# What were the survey results

#### Pesticides

A total of 294 samples were tested for pesticides. No detectable levels of pesticide residues were found in 73.8% of the infant food tested. The results from the remaining 77 samples were 100% compliant with Canadian regulations.

In this study,166 of the 294 samples were labelled as "organic". There were no pesticide residues detected in 89.8% (149 samples) of organic products tested. All of the remaining 17 samples with detected levels of pesticides were below Canadian MRLs. All organic pesticide residue results were sent to the CFIA Organics office for review.

#### **Metals/elements**

A total of 291 samples were tested for metals/elements and 79.0% did not have detected levels for arsenic, cadmium, lead and mercury. All metals/elements results were sent to HC's Bureau of Chemical Safety for review and all 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)<sup>4</sup>. 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 skin<sup>5</sup>. For most Canadians, the primary source of exposure to arsenic is food, followed by drinking water, soil, and air<sup>5</sup>.

At the time of this survey, MLs for inorganic arsenic included polished (white) rice (0.2 ppm) and husked (brown) rice (0.35 ppm) were established in July, 2020<sup>3</sup>. 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<sup>9</sup>. The ML for total arsenic in fruit juice is 0.1 ppm. None of the juice samples tested contained detectable levels of arsenic.

A total of 97.6% (284 samples) did not contain detected levels of total arsenic (includes both organic and inorganic forms). Detected levels of arsenic ranged from 0.02 to 0.251 ppm with the highest levels in canned and dry pasta.

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#### 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 population<sup>6</sup>. Kidneys and bones are affected by cadmium toxicity<sup>6</sup>.

A total of 80.8% (235 samples) of samples did not contain detected levels of cadmium. Detected levels of cadmium ranged from 0.010 to 0.069 ppm with highest levels in canned and dry pasta.

#### 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 heath. Lead occurs naturally in the environment and has many industrial uses, such as mining, smelting and battery manufacturing<sup>7</sup>. 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 lead<sup>6</sup>.

The ML for lead in fruit juice is 0.05 ppm. None of the juice samples tested contained detectable levels of lead. There are no MLs for other products tested in this survey. A total of 97.9% (285 samples) of samples did not contain detected levels of lead. Detected levels of lead ranged from 0.015 to 0.047 ppm with the highest levels in canned and dry pasta.

#### Mercury

Mercury is released naturally from rocks, soils and volcanoes. Industrial activities have also increased the amount of mercury in the environment<sup>8</sup>. 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 exposure<sup>8</sup>. Methylmercury is the more toxic organic form, is easily absorbed and can cross the blood-brain barrier<sup>8</sup>. Children and the developing fetus are particularly susceptible to the harmful effects of methylmercury.

A total of 99.0% (288 samples) of samples did not contain detected levels of mercury. Detected levels of mercury ranged from 0.0005 to 0.002 ppm with the highest levels in infant and toddler meals.

# 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), as well as veterinary drug residues and

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aflatoxin M1 will be examined in samples of infant cereals, infant/toddler snacks and infant formulas.

# References

- 1. <u>Maximum Residue Limits for Pesticides</u>. (2021).Canada.Health Canada.
- 2. Food and Drug Regulations. (2023).Canada.Justice Laws
- 3. <u>List of contaminants and other adulterating substances in foods</u>. (2022).Health Canada.
- 4. Arsenic in Drinking Water. (2006). Canada. Health Canada.
- 5. Arsenic. (2022). Canada. Health Canada.
- 6. <u>Scientific Opinion of the Panel on Contaminants in the Food Chain on a Request from</u> <u>the European Commission on Cadmium in Food.</u> 2009. The EFSA Journal, 980, pp.1-139.
- 7. Final Human Health State of Science Report on Lead. (2013). Canada. Health Canada.
- 8. Mercury and Human Health. (2021). Canada. Health Canada.
- 9. <u>Health Canada's Proposal to Add a Maximum Level for Inorganic Arsenic in Rice-based</u> <u>Foods Intended Specifically for Infants and Young Children</u>. 2021. Health Canada

### Appendix A: List of pesticides

Α	В	С	D	Е	F	G	Н		J	K	L	М
Ν	0	Р	Q	R	S	Т	U	V	W	Х	Y	Z

- 1-napthol
- 2,3,5,6-Tetrachloroaniline
- 2,4-D

### Α

- Abamectin •
- Acephate
- Acetamiprid
- Acetochlor
- Acibenzolar-s-methyl
- Aclonifen
- Acrinathrin
- Alachlor
- Aldicarb

### Β

- Benalaxyl •
- Bendiocarb
- Benfluralin
- Benodanil
- Benomyl •
- Benoxacor •
- Bensulide
- Benzoylprop-ethyl
- Bifenazate
- Bifenox

### С

- Cadusafos
- Captafol
- Captan
- Captan metabolite (THPI)

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- 2,6-• diisopropylnaphthale ne
- 3-hydroxyCarbofuran
- Aldicarb sulfone .
- Aldicarb sulfoxide •
- Aldrin •
- Allethrin-d-trans •
- Allidochlor •
- Ametryn
- Aminocarb •
- (Aminomethyl) • phosphonic acid
- Bifenthrin •
- Boscalid
- Bromacil
- Bromophos •
- Bromophos-ethyl •
- Bromopropylate
- Bromuconazole
- Bufencarb
- Carbaryl
- Carbendazim
- Carbetamide
- Carbofenthion
- Carbofuran

- 5hydroxythiabendazol е
- Anilofos
- Aramite
- Atrazine
- Atrazine-desethyl
- Azaconazole
- Azinphos-ethyl
- Azinphos-methyl
- Azoxystrobin
- **Bupirimate**
- **Buprofezin**
- Butachlor
- **Butafenacil**
- Butocarboxim
- Butocarboxim sulfoxide
- Butralin
- Butylate
- Carbosulfan
- Carboxin
- Carfentrazone-ethyl
- Chlorantraniliprole
- Chlorbenside

- **Bitertanol**
- .
- •
- Biphenyl .

- Chlorbromuron
- Chlorbufam
- Chlordane-cis
- Chlordane-trans
- Chlordimeform
- Chlorfenapyr
- Chlorfenson
- Chlorfenvinphos (e+z)
- Chlorfluazuron
- Chlorflurenol-methyl
- Chloridazon
- Chlorimuron-ethyl
- Chlormephos
- Chlorobenzilate
- Chloroneb
- Chloropropylate
- Chlorothalonil

#### D

- 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

- Chloroxuron
- Chlorpropham
- Chlorpyrifos
- Chlorpyrifos-methyl
- Chlorthal-dimethyl (Dacthal)
- Chlorthiamid
- Chlorthion
- Chlorthiophos
- Chlortoluron
- Chlozolinate
- Clethodim
- Clodinafop-propargyl
- Clofentezine
- Clomazone
- Cloquintocet-mexyl
- Clothianidin
- Coumaphos
- Dichlofluanid
- Dichlormid
- Dichlorvos
- Diclobutrazole
- Diclocymet
- Diclofop-methyl
- Dicloran
- Dicofol
- Dicrotophos
- Dieldrin
- Diethatyl-ethyl
- Diethofencarb
- Difenoconazole
- Diflubenzuron
- Dimethachlor
- Dimethametryn
- Dimethoate
- Dimethomorph

- Crotoxyphos
- Crufomate
- Cyanazine
- Cyanofenphos
- Cyanophos
- Cyazofamid
- Cycloate
- Cycloxydim
- Cycluron
- Cyfluthrin (I,II,III,IV)
- Cyhalothrin-lambda
- Cypermethrin
- Cyprazine
- Cyproconazole
- Cyprodinil
- Cyromazine
- Dimetilan
- Dimoxystrobin
- Diniconazole
- Dinitramine
- Dinotefuran
- Dioxacarb
- Dioxathion
- Diphenamid
- Diphenylamine
- Dipropetryn
- Diquat
- Disulfoton
- Disulfoton sulfone
- Diuron
- Dodemorph
- Dodine

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### Ε

- 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 (Ronnel)
- Fenfuram
- Fenhexamid
- Fenitrothion
- Fenobucarb
- Fenoxanil
- Fenoxycarb
- Fenpropathrin
- Fenpropidin
- Fenpropimorph

- 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

- 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

- G
- Glyphosate

Griseofulvin





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### н

- Haloxyfop •
- HCH-alpha •
- HCH delta (deltalindane)
- HCH-gamma • (Lindane)

- HCH-beta
- Heptachlor •
- Heptachlor epoxide • endo
- Heptachlor epoxide exo
- Heptenophos •
- Hexachlorobenzene
- Hexaconazole
- Hexazinone
- Hexythiazox

### I

- Imazalil •
- Imazamethabenzmethyl
- Imazapyr
- Imidacloprid •
- Indoxacarb
- Iodofenphos •
- Ipconazole •

### Κ

Kresoxim-methyl

### L

Leptophos •

Lufenuron

### Μ

Ν

- Malaoxon •
- Malathion
- Mandipropamid •
- **MCPA** •
- Mecarbam •
- Mepanipyrim •
- Methoprotryne •
- Methoxychlor •
- Methoxyfenozide •
- Methyl trithion
- Metobromuron •
- Metolachlor

- Mephosfolan
- Metaconazole •
- Metalaxyl •
- Metazachlor •
- Methabenzthiazuron •
- Methamidophos
- Metolcarb •
- Metosulam •
- Metoxuron •
- Metribuzin
- Mevinphos (Total) •
- Mexacarbate

- Methidathion
- Methiocarb
- Methiocarb sulfone •
- Methiocarb Sulfoxide •
- Methomyl •
- Methoprene •
- Mirex
- Molinate •
- Monocrotophos
- Monolinuron
- Myclobutanil

Canada

- Iprobenfos . Iprodione •
- Iprovalicarb •
- Isazophos
- Isocarbamide •
- Isocarbophos
- Isofenphos-methyl
- - Isofenphos
- Isoprothiolane Isoproturon
  - Isoxadifen-ethyl •

Isoprocarb

Isopropalin

Isoxathion

- - Linuron



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- Naled
- Napropamide
- Naptalam
- Neburon
- Nicotine
- Nitralin

### 0

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

### Ρ

- 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
- Pentachlorothioaniso le
- Permethrin-cis
- Permethrin-trans
- Phenmedipham
- Phenthoate

- Nitrapyrin
- Nitrofen
- Nitrothal-isopropyl
- Nonachlor-cis
- Nonachlor-trans
- Norflurazon

- Norflurazon desmethyl
- Novaluron
- Nuarimol

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

•

- Oxamyl-oxime
- Oxycarboxin
- Oxychlordane
- Oxyfluorfen

- 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
- Propamocarb
- Propachlor
- Propanil
- Propargite
- Propazine
- Propetamphos
- Propham
- Propiconazole
- Propoxur
- Prothioconazole
- Prothiophos
- Pymetrozine
- Pyracarbolid
- Pyraclostrobin
- Pyraflufen-ethyl
- Pyrazophos
- Pyridaben
- Pyridalyl
- Pyridaphenthion

anada

Pyridate

- Pyrifenox
- Pyrimethanil

- Pyriproxyfen
- Pyroquilon

Pyroxsulam

### Q

- Quinalphos
- Quinomethionate
- Quinoxyfen
- Quintozene

- Quizalofop
- Quizalofop-ethyl

### R

• Resmethrin

### S

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

#### • Spinosyn (total)

•

• Spirodiclofen

Spinetoram

- Spiromesifen
- Spiromesifen-enol
- Spirotetramat

### Т

- TCMTB
- Tebuconazole
- Tebufenozide
- Tebufenpyrad
- Tebupirimfos
- Tecnazene

- Tepraloxydim
- Terbacil
- Terbufos
- Terbumeton
- Terbutryne
- Terbutylazine

- Spiroxamine
- Sulfallate
- Sulfentrazone
- Sulfotep
- Sulfoxaflor
- Tetracholrvinphos
- Tetraconazole
- Tetradifon
- Tetraiodoethylene
- Tetramethrin
- Tetrasul

- Thiabendazole
- Thiacloprid
- Thiamethoxam
- Thiazopyr
- Thiobencarb
- Thiodicarb
- Tribufos
- Trichlorfon
- Triclosan
- Tricyclazole
- Trietazine
- Trifloxystrobin
- Trifloxysulfuron

### V

• Vernolate

- Triflumizole
- Trifluralin
- Triforine
- Trimethacarb
- Triphenyl phosphate
- Tris (1,3-Dichloroisopropyl)
- 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

Vinclozolin

- Ζ
- Zengxiaoan

• Zinophos

• Zoxami

## 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	Fruit and vegetable puree	124	35	89	0	14.40	1.16
Aluminum	Infant and toddler meals	53	9	44	0	6.53	1.36
Aluminum	Canned and dry pasta	47	0	47	0.68	300	11.17
Aluminum	Juice	67	45	22	0	1.61	0.28
Antimony	Fruit and vegetable puree	124	124	0	0	0	0
Antimony	Infant and toddler meals	53	53	0	0	0	0
Antimony	Canned and dry pasta	47	47	0	0	0	0
Antimony	Juice	67	67	0	0	0	0
Arsenic	Fruit and vegetable puree	124	124	0	0	0	0
Arsenic	Infant and toddler meals	53	51	2	0	0.17	0.004
Arsenic	Canned and dry pasta	47	42	5	0	0.25	0.02
Arsenic	Juice	67	67	0	0	0	0
Berylium	Fruit and vegetable puree	124	124	0	0	0	0
Berylium	Infant and toddler meals	53	53	0	0	0	0
Berylium	Canned and dry pasta	47	47	0	0	0	0
Berylium	Juice	67	67	0	0	0	0
Boron	Fruit and vegetable puree	124	0	124	0.49	9.32	3.07
Boron	Infant and toddler meals	53	0	53	0.4	5.53	2.28
Boron	Canned and dry pasta	47	0	47	0.51	2.55	1.02



Boron	Juice	67	7	60	0	5.52	1.50
	Fruit and						
Cadmium	vegetable puree	124	120	4	0	0.02	0.001
Cadmium	Infant and toddler meals	53	47	6	0	0.02	0.002
Cadmium	Canned and dry pasta	47	2	45	0	0.07	0.02
Cadmium	Juice	67	66	1	0	0.01	0
Chromium	Fruit and vegetable puree	124	113	11	0	0.43	0.01
Chromium	Infant and toddler meals	53	45	8	0	0.21	0.02
Chromium	Canned and dry pasta	47	44	3	0	0.13	0.01
Chromium	Juice	67	66	1	0	1.84	0.03
Copper	Fruit and vegetable puree	124	112	12	0	1.5	0.11
Copper	Infant and toddler meals	53	49	4	0	6.2	0.18
Copper	Canned and dry pasta	47	11	36	0	5.4	1.65
Copper	Juice	67	67	0	0	0	0
Iron	Fruit and vegetable puree	124	36	88	0	22.6	2.83
Iron	Infant and toddler meals	53	4	49	0	14.6	4.36
Iron	Canned and dry pasta	47	0	47	4.2	63.50	24.58
Iron	Juice	67	64	3	0	7.80	0.20
Lead	Fruit and vegetable puree	124	123	1	0	0.02	0
Lead	Infant and toddler meals	53	51	2	0	0.18	0.001
Lead	Canned and dry pasta	47	44	3	0	0.05	0.002
Lead	Juice	67	67	0	0	0	0
Magnesium	Fruit and vegetable puree	124	0	124	22.8	301	127.20
Magnesium	Infant and toddler meals	53	0	53	70.8	282	157.14

Magnesium	Canned and dry pasta	47	0	47	133	2590	589.02
Magnesium	Juice	67	0	67	5.02	141	53.70
Manganese	Fruit and vegetable puree	124	0	124	0.16	5.98	1.07
Manganese	Infant and toddler meals	53	0	53	0.5	8.54	1.61
Manganese	Canned and dry pasta	47	0	47	1.46	22.50	6.93
Manganese	Juice	67	12	55	0	4.35	0.40
Mercury	Fruit and vegetable puree	124	124	0	0	0	0
Mercury	Infant and toddler meals	53	51	2	0	0.002	0
Mercury	Canned and dry pasta	47	46	1	0	0.001	0
Mercury	Juice	67	67	0	0	0	0
Molybdenum	Fruit and vegetable puree	124	118	6	0	0.89	0.02
Molybdenum	Infant and toddler meals	53	50	3	0	0.37	0.01
Molybdenum	Canned and dry pasta	47	11	36	0	0.86	0.34
Molybdenum	Juice	67	67	0	0	0	0
Nickel	Fruit and vegetable puree	124	75	49	0	0.29	0.05
Nickel	Infant and toddler meals	53	19	34	0	0.345	0.08
Nickel	Canned and dry pasta	47	12	35	0	0.28	0.08
Nickel	Juice	67	65	2	0	0.58	0.01
Selenium	Fruit and vegetable puree	124	122	2	0	0.12	0.002
Selenium	Infant and toddler meals	53	50	3	0	0.14	0.005
Selenium	Canned and dry pasta	47	4	43	0	0.70	0.24
Selenium	Juice	67	67	0	0	0	0
Tin	Fruit and vegetable puree	124	124	0	0	0	0

Tin	Infant and toddler meals	53	53	0	0	0	0
Tin	Canned and dry pasta	47	46	1	0	111	2.36
Tin	Juice	67	66	1	0	87	1.30
Titanium	Fruit and vegetable puree	124	122	2	0	1.15	0.02
Titanium	Infant and toddler meals	53	51	2	0	0.41	0.01
Titanium	Canned and dry pasta	47	22	25	0	2.92	0.22
Titanium	Juice	67	67	0	0	0	0
Zinc	Fruit and vegetable puree	124	33	91	0	5.20	1.06
Zinc	Infant and toddler meals	53	0	53	0.63	10.50	2.84
Zinc	Canned and dry pasta	47	0	47	2.58	137	15.57
Zinc	Juice	67	65	2	0	0.82	0.02