

FOOD CONTENT OF POTENTIAL CARCINOGENS

Nitrates, nitrites, nitrosamines, heterocyclic amines and polycyclic aromatic hydrocarbons



CONTENIDO DE SUSTANCIAS POTENCIALMENTE CANCERÍGENAS EN ALIMENTOS

Nitratos, nitritos, nitrosaminas, aminas heterocíclicas e hidrocarburos aromáticos policíclicos

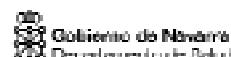


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FOREWORD

Nitrosamines, heterocyclic amines (HA) and polycyclic aromatic hydrocarbons (PAH) are among the most important potential carcinogens found in the usual diet of Western populations. They have some common features. First, for the general population, diet is the main source of exposure to these compounds, although there are other sources of exposure, such as smoking and environmental pollution. Second, although there is extensive evidence of their carcinogenic effects in experimental studies in animals, there are inadequate data of their effects at low doses of exposure in human populations. Long-term exposure to low doses seems to be important since animal studies have shown that frequent low dose application of these compounds is a more potent chemical inducer of cancer than infrequent high doses. Third, concentration of these compounds in foods is associated with preparation, preservation and cooking methods, that usually are not recorded in dietary questionnaires. This is one reason for the lack of epidemiological data on the effects of these compounds in humans. Another reason is that their content is not included in food composition tables.

EPIC-Spain, the Spanish component of the "European Prospective Investigation into Cancer and Nutrition" (EPIC), is involved in nutrition and cancer research and, at present, one of its main interests is the occurrence of cancer associated to carcinogenic compounds present in foods. Because of the lack of published composition tables, we have prepared this table to provide extensive information on food concentration of some of these carcinogenic compounds in foods. We compiled available published data on food concentration on nitrosamines, HA and PAH. Nitrites and nitrates were also included because they are precursors of endogenous nitrosamines. So far, the table includes 207 food items for nitrites, nitrates and nitrosamines, 297 food items for HA and 313 for PAH, with 139 references.

International experts on these compounds and on food composition tables were invited to review the compiled information. They looked over the preliminary version of the table and gave additional references that helped us to improve the work. We are very grateful to them for their useful collaboration, as well as to those who produced this data through the laboratory analysis.

We offer the first edition of this table to all interested scientific groups. A hard copy, as well as an electronic version, are available upon request, free of charge. We hope that it will be a useful and valuable tool to enable better understanding of the causal relationships between these potential carcinogens and the risk of cancer in human populations.

Carlos A. González
On behalf of EPIC-Spain

PRÓLOGO

Las nitrosaminas, las aminas heterocíclicas (AH) y los hidrocarburos aromáticos policíclicos (HAP) se encuentran entre los potenciales cancerígenos más importantes de la dieta habitual de la población occidental. Estos compuestos tienen características comunes. En primer lugar, la dieta es la principal fuente de exposición para la población general, aunque hay otras fuentes tales como el tabaco y la contaminación ambiental. En segundo lugar, aunque hay evidencia suficiente de sus efectos cancerígenos en estudios experimentales en animales, no hay evidencia suficiente respecto a sus efectos en poblaciones humanas a bajas dosis de exposición. La exposición prolongada a bajas dosis puede ser importante ya que estudios en animales han mostrado que la aplicación frecuente de bajas dosis de estos compuestos, produce una inducción química al cáncer más potente que la aplicación de altas dosis con menor frecuencia. En tercer lugar, la concentración de estos compuestos en los alimentos está asociado al método de preparación, conservación y cocción, que habitualmente no se recogen en los cuestionarios alimentarios. Esta es una de las razones de la insuficiencia de datos epidemiológicos del efecto de estos compuestos en humanos. Otra razón es que su contenido no está incluido en las tablas de composición de alimentos.⁹

EPIC-España, el componente español del "Estudio Prospectivo Europeo sobre Cáncer, Dieta y Salud" (EPIC) está dedicado principalmente a la investigación sobre nutrición y cáncer, y uno de sus focos de interés es la evaluación del efecto de componentes potencialmente cancerígenos presentes en los alimentos. Dada la ausencia de tablas de composición publicadas sobre potenciales carcinógenos presentes en los alimentos, nuestro grupo ha preparado esta tabla para proveer una extensa información sobre la concentración de algunos componentes potencialmente cancerígenos. Hemos compilado la información publicada disponible sobre la concentración en alimentos de nitrosaminas, AH e HAP. Se han incluido también nitritos y nitratos puesto que son precursores de la formación de nitrosaminas endógenas. La tabla incluye 207 ítems alimentarios para nitritos, nitratos y nitrosaminas, 297 para HAC y 313 para HAP, con un total de 139 referencias bibliográficas.

Expertos internacionales sobre estos compuestos y sobre tablas de composición alimentaria han revisado la información inicialmente compilada y han aportado referencias adicionales, con lo que se ha conseguido obtener unas tablas más exhaustivas. A ellos agradecemos su inestimable colaboración, así como a todos aquellos que produjeron tan valiosa información en los análisis de laboratorio.

Ofrecemos esta primera edición de la tabla a todos los grupos científicos interesados. Esta edición impresa y una edición en formato electrónico están disponibles de manera gratuita para quienes lo soliciten. Esperamos que pueda ser un instrumento útil para el conocimiento de la relación causal entre estos potenciales cancerígenos y el riesgo de cáncer en poblaciones humanas.

Carlos A. González
En nombre de EPIC-España

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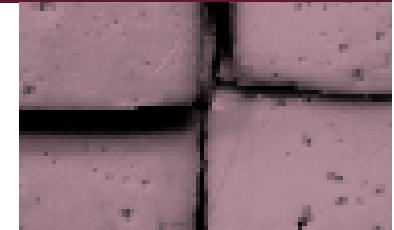
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MATERIAL AND METHODS / MATERIAL Y MÉTODOS



FOOD CONTENT OF POTENTIAL CARCINOGENS / CONTENIDO DE POTENCIALES CANCERÍGENOS EN ALIMENTOS

NITROSAMINES AND NITROSAMINE PRECURSORS NITROSAMINAS Y PRECURSORES DE NITROSAMINAS

NITROSAMINE PRECURSORS / PRECURSORES DE NITROSAMINAS

- Nitrate / Nitrato: mg/100 g
- Nitrite / Nitrito: mg/100 g

POTENTIAL CARCINOGENS / POTENCIALES CANCERÍGENOS

NITROSAMINES / NITROSAMINAS:

µg/100g food / µg/100 g de alimento
(except: * µmol / excepto: * µmol)

NDMA: N-nitrosodimethylamine / n-nitrosodimetilamina

PYR: N-Nitrosopyrrolidine / n-nitrosopirrolidina

NPIP: N-Nitrosopiperidine / N-Nitrosopiperidina

NPRO: N-Nitrosoproline / n-nitrosoprolina

COMBINED / COMBINACIÓN:

only for NOC (nitrosocompounds) / solamente para NOC (compuestos nitrosos)

NOC TYPE (TYPE OF COMBINATION) / TIPO NOC (TIPO DE COMBINACIÓN)

1. NA: not available / no disponible
2. NDMA + NPYR
3. NPYR + NPIP
4. NDMA + NDEA (N-nitrosodiethylamine / N-nitrosodietilamina)
5. NTHZ (N-Nitrosothiazolidine / N-Nitrosotiazolidina)
6. NDMA + NPIP + NDEA (N-Nitrosothylamine / N- Nitrosotilamina)
7. NDEA + NDBA (N-Nitrosodibutylamine / N-Nitrosodibutilamina)
8. NDMA + NDEA + NPYR
9. NDMA + NDEA + NDBA + NMOR (N-nitrosomorpholine / N-nitrosomorfolina)
10. NDEA + NDBA + NDMA
11. NDMA + NPRO + NTHZ
12. NDMA + NPIP + NPYR
13. NDMA + NPRO
14. Other combinations / otras combinaciones

HETEROCYCLIC AMINES / AMINAS HETEROCÍCLICAS (ng/g)

- PhIP: 2-amino-1-methyl-6-phenylimidazo (4,5,b) pyridine
2-amino-1-methyl-6-fenilimidazo (4,5,b) piridona
- MeIQx: 2-amino-3,8 dimethylimidazo (4,5,f) quinoxilina
2-amino-3,8 dimetilidazo (4,5,f) quinoxilina

FOOD GROUPS / GRUPOS ALIMENTARIOS

DiMeIQX: 2-amino-3,4,8 trimethylimidazo (4,5,f) quinoxilene
2-amino-3,4,8 trimetilmidazo (4,5,f) quinoxilina

AC: 2-amino-9-H-pyrido (2,3,b) indole
2-amino-9-H-pirido (2,3,b) indol

IQ: 2-amino-3-methylimidazo (4,5,f) quinoline
2-amino-3-metilimidazol (4,5,f) quinolina

MeIQ: 2-amino-3,4 dimethylimidazo (4,5,f) quinoline
2-amino-3,4 dimetilimidazo (4,5,f) quinolina

POLYCYCLIC AROMATIC HIDROCARBONS HIDROCARBUROS AROMÁTICOS POLICÍCLICOS (µg /kg)

B (a) P: benzo (a) pyrene
benzo (a) pireno

Dib (a) A: dibenzo (a) antracene
dibenzo (a) antraceno

Total PAH

When ND (not detected) is shown as a value, its means that the compound value is under the detection limits.

Cuando ND (no detectable) es mostrado como un valor, esto significa que el valor del compuesto está por debajo del límite de detección.

1. POTATOES AND TUBERS / PATATAS Y TUBÉRCULOS
2. VEGETABLES / VEGETALES
3. FRUITS / FRUTAS
4. MILK AND DAIRY PRODUCTS / LECHE Y DERIVADOS LÁCTEOS
5. CEREALS AND CEREAL PRODUCTS / CEREALES Y DERIVADOS
6. MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS
7. FISH / PESCADO
8. EGGS / HUEVOS
9. FAT (ADDED) / GRASAS (AÑADIDAS)
10. SWEETS AND DESSERTS / DULCES Y POSTRES
11. ALCOHOLIC BEVERAGES / BEBIDAS ALCOHÓLICAS
12. NON ALCOHOLIC BEVERAGES / BEBIDAS NO ALCOHÓLICAS

TABLE CONTENT / CONTENIDO DE LA TABLA

FOOD

food name in English / nombre del alimento en inglés

ALIMENTO

food name in Spanish / nombre del alimento en español

COOKING METHOD / MÉTODO DE COCCIÓN

BA/GR barbecued / a la barbacoa

BK/ROA baked / al horno

BO boiled / hervido

BR broiled / a la plancha

FR fried / frito

MW microwave / al microondas

NA not available / no disponible

NE cooked / cocinado

NP not applicable / no aplicable

RA raw / crudo

SM smoked / ahumado

STW stewed / estofado

TOA toasted / tostado

PRESERVATION METHOD / MÉTODO DE CONSERVACIÓN

CA canned / enlatado

CU cured / curado

DR dried / seco o en copos

FR fresh / fresco

FZ frozen / congelado

MA marinated / marinado

NA not available / no disponible

NP not applicable / no aplicable

SA salted / en salazón

SM smoked / ahumado

DEGREE OF DONENESS / GRADO DE COCCIÓN

only for heterocyclic amines / solamente para aminas heterocíclicas

uc uncooked / sin cocinar

ra rare / poco hecho

me medium / medio hecho

wd well done / bien hecho

vwd very well done / muy bien hecho

ew extra well done / extra hecho

na not available / no disponible

np not applicable / no aplicable

TEMP (°C) cooking temperature / temperatura de cocción
only for heterocyclic amines / solamente para aminas heterocíclicas

TIME / TIEMPO cooking time (minutes) / tiempo de cocción (minutos)
only for heterocyclic amines / solamente para aminas heterocíclicas

VALUE / VALOR

value type / tipo de valor

md	median / mediana
mi	minimum / mínimo
mn	mean / media
mx	maximum / máximo
n.a	not available / no disponible
p	predicted / predicho
tr	traces / trazas
w	weighted / ponderado

When several values from different authors were found for identical foods cooked with the same method in a given data compilation, the mean estimate was reported.

Cuando, para idénticos alimentos cocinados con el mismo método, se encontraron varios valores de distintos autores en una determinada compilación, se reportó la media estimada de dichos valores.

ANALYTIC METHOD / MÉTODO ANALÍTICO

CZE	Capillary Zone Electrophoresis Electroforesis capilar
GC	Gas Chromatography Cromatografía de gases
GC-MS	Gas Chromatography + Mass Spectrometry Cromatografía de Gases + Espectrofotometría de Masas
GC-TEA	Gas Chromatography + Thermal Energy Analysis Cromatografía de Gases + Análisis de Energía Térmica
HPLC	High Performance Liquid Chromatography Cromatografía Líquida de Alta Resolución
HPLC-FL	HPLC-Fluorescent Detection HPLC con Detección por Fluorescencia
HPLC-MS	HPLC + Mass Spectrometry HPLC + Espectrofotometría de Masas
HPLC-TLC	HPLC + Thin Layer Chromatography HPLC + Cromatografía en Capa Fina
HPLC-UV	HPLC-ultraviolet detection HPLC - con Detección Ultravioleta
IDF	Method recommended by the International Dairy Federation Método recomendado por la Federación Internacional para productos lácteos
NA	The original publication is not available Información original no disponible
NE	The analytic method is not specified Método analítico no especificado

SAMPLING METHOD / MÉTODO DE MUESTREO

1. Completely specified: it specifies number and origin of collected samples.
Especificado de forma completa: especifica el número y origen de las muestras recogidas.
2. Incompletely specified: it does not specify the number or the origin of collected samples.
Especificado de forma incompleta: no especifica el número o el origen de las muestras.
3. Not specified: the sampling method is not specified.
Sin especificar: El método de muestreo no está especificado.
4. Information not available: the original publication is not available.
Información no disponible: el artículo original no está disponible.

YEAR / AÑO

publication year of the original reference / año de publicación de la referencia original.

AUTHOR / AUTOR

First author of the paper / Autor principal de la publicación.

COUNTRY CODE / CÓDIGO DEL PAÍS

COUNTRY CODE OF PUBLICATION / CÓDIGO DEL PAÍS DONDE FUE PUBLICADO

Austria	AT	Austria
Brazil	BR	Brasil
Canada	CA	Canadá
China	CN	China
Finland	FI	Finlandia
France	FR	Francia
Germany	DE	Alemania
Greece	GR	Grecia
Hong Kong	HK	Hong Kong
Iceland	IS	Islandia
India	IN	India
Italy	IT	Italia
Kuwait	KW	Kuwait
New Zealand	NZ	Nueva Zelanda
Norway	NO	Noruega
Scotland	SC	Escocia
Spain	ES	España
Sweden	SE	Suecia
Switzerland	CH	Suiza
The Netherlands	NL	Holanda
Greece	GR	Grecia
United Kingdom	UK	Reino Unido
United States of America	US	Estados Unidos de América

NA: information not available / información no disponible

SOURCE / FUENTE

Source of data: direct source (D) or compiled data (C)

Fuente del dato: fuente directa (D) o compilación de datos (C)

REF / REF

Reference: publication from which data was obtained

Referencia: artículo del cual se obtuvo la información

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NITROSAMINES AND NITROSAMINE PRECURSORS

NITROSAMINAS Y PRECURSORES DE NITROSAMINAS



POTATOES AND TUBERS / PATATAS Y
TUBÉRCULOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente		
Potatoes (sweet)	Boniatos	RA	FR	6.50	mn	0.11	mn								NA	4	1981	U.S Assembly of life Sciences ¹³	US	C	2	
Potatoes (white)	Patatas	RA	FR	14.2	w	0.11	w								NA	4	1982	French National Inventory ¹²	FR	C	1	
Potatoes (white)	Patatas	RA	FR					0.015-1.44							mn	NA	1	1991	Xu et al. ⁸	CN	D	8

VEGETABLES / VEGETALES

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA µ/100g	NPIP µ/100g	NPYR µ/100g	NPro µ/100g	Comb. µ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor										Año	Autor	Código País	Fuente		
Artichoke	Alcachofa	RA	FR	1.60	mn	0.06	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Asparagus	Espárrago	RA	FR	6.00	mn	0.09	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Beet	Remolacha	RA	FR	121	mn											HPLC	3	1998	Food Standards Agency ³	SC	D	3
Beet	Remolacha	RA	FR	214	w	0.22	w									NA	4	1982	French National Inventory ¹²	FR	C	1
Beet	Remolacha	RA	FR	329	mn	0.60	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Broccoli	Brócoli	RA	FR	101.4	mn	0.15	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Brussels sprouts	Coles de Bruselas	RA	FR	2.20	mn	0.80	mn									NA	4	1982	French National Inventory ¹²	FR	C	1
Brussels sprouts	Coles de Bruselas	RA	FR	16.4	mn	0.15	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Cabbage	Repollo/Col	RA	FR	33.8	mn											HPLC	3	1998	Food Standards Agency ³	SC	D	3
Cabbage	Repollo/Col	RA	FR	15.2	w	0.02	w									NA	4	1982	French National Inventory ¹²	FR	C	1
Cabbage	Repollo/Col	RA	FR	71.2	mn	0.08	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Cabbage	Repollo/Col	RA	FR										0.014-0.19	1	mn	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8
Carrot	Zanahoria	RA	FR	9.70	w											HPLC	3	1998	Food Standards Agency ³	SC	D	3
Carrot	Zanahoria	RA	FR	17.6	w	0.12	w									NA	4	1982	French National Inventory ¹²	FR	C	1
Carrot	Zanahoria	RA	FR	27.4	mn	0.12	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Cauliflower	Coliflor	RA	FR	8.60	mn											HPLC	3	1998	Food Standards Agency ³	SC	D	3
Cauliflower	Coliflor	RA	FR	10.7	mn	0.052	mn									NA	4	1982	French National Inventory ¹²	FR	C	1
Cauliflower	Coliflor	RA	FR	65.8	mn	0.17	mn									NA	4	1981	U.S Assemby of Life Sciences ¹³	US	C	2
Celery	Apio	RA	FR	22.6	w	0.30	w									NA	4	1982	French National Inventory ¹²	FR	C	1

VEGETABLES / VEGETALES

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Celery	Apio	RA	FR	315	mn	0.08	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Chard	Acelga	RA	FR	203	w	0.13	w								NA	4	1982	French National Inventory ¹²	FR	C	1
Corn	Maíz	RA	FR	6.20	w	0.30	w								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Corn	Maíz	RA	FR									0.002-0.83	1	mn	GC- TEA	1	1991	Xu et al. ⁸	CN	D	8
Courgette	Calabacín	RA	FR	0.90	w										NA	4	1979	Corre and Breimer ¹⁴	NL	C	1
Cucumber	Pepino	RA	FR	15.7	w	0.54	w								NA	4	1982	French National Inventory ¹²	FR	C	1
Cucumber	Pepino	RA	FR	15.1	mn	0.08	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Eggplant	Berenjena	RA	FR	17.9	w										NA	4	1979	Corre and Breimer ¹⁴	NL	C	1
Eggplant	Berenjena	RA	FR	37.0	w	0.08	w								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Eggplant	Berenjena	RA	FR									nd	1	mm	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8
Endive	Endibia	RA	FR	0.33	w	0.07	w								NA	4	1982	French National Inventory ¹²	FR	C	1
Endive	Endibia	RA	FR	178	mn	0.08	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Kale	Col rizada	RA	FR	6.60	w	0.03	w								NA	4	1982	French National Inventory ¹²	FR	C	1
Kale	Col rizada	RA	FR	110	mn	0.15	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Leek	Puerro	RA	FR	17.8	w	0.66	w								NA	4	1982	French National Inventory ¹²	FR	C	1
Leek	Puerro	RA	FR	70.0	mn	0.00	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Lettuce	Lechuga	RA	FR	105.1	mn										HPLC	3	1998	Food Standards Agency ³	SC	D	3
Lettuce	Lechuga	RA	FR	233	mn	0.06	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2
Mushrooms	Champiñones	RA	FR	1.40	w	0.09	w								NA	4	1982	French National Inventory ¹²	FR	C	1

VEGETABLES / VEGETALES

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente		
Mushrooms	Champiñones	RA	FR	21.9	mn	0.08	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Onion	Cebolla	RA	FR	4.80	mn										HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Onion	Cebolla	RA	FR	1.70	w	0.03	w								NA	4	1982	French National Inventory ¹²	FR	C	1	
Onion	Cebolla	RA	FR	23.5	mn	0.11	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Parsley	Perejil	RA	FR	138	mn	0.00	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Peas	Guisantes	RA	FR	0.10	w	0.07	w								NA	4	1982	French National Inventory ¹²	FR	C	1	
Peas	Guisantes	RA	FR	4.00	mn	0.09	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Pepper (sweet)	Pimiento dulce	RA	FR	16.5	mn	0.06	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Pumpkin	Calabaza	RA	FR	55.0	mn	0.08	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Radish	Rábano	RA	FR	258	w	0.48	w								NA	4	1982	French National Inventory ¹²	FR	C	1	
Radish	Rábano	RA	FR	260	mn	0.03	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Spinach	Espinaca	RA	FR	163	mn										HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Spinach	Espinaca	RA	FR	44.3	w	0.77	w								NA	4	1982	French National Inventory ¹²	FR	C	1	
Spinach	Espinaca	RA	FR	247	mn	0.38	mn								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Tomato	Tomate	RA	FR	1.70	mn										HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Tomato	Tomate	RA	FR	3.10	w	0.03	w								NA	4	1982	French National Inventory ¹²	FR	C	1	
Tomato	Tomate	RA	FR	8.00	w	0.00	w								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	
Tomato	Tomate	RA	FR										0.187-0.27	1	m	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8
Turnip	Nabo	RA	FR	53.5	mn										NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	2	

VEGETABLES / VEGETALES

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Vegetables	Verduras	NA	CA					0.00				0.03-13.2	13	w	GC	4	1988	Sidiqqui et al. ¹⁷	IN	C	11
Vegetables	Verduras	NA	CA	18.0	w	45.0	w								HPLC	3	1998	Food Standards Agency ³	SC	D	3
Vegetables (fermented)	Verduras fermentadas	NA	NA									nd-0.50	2	w	GC	4	1980	Spiegelhalder ¹⁵	DE	C	11

FRUITS / FRUTAS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA µ/100g	NPIP µ/100g	NPYR µ/100g	NPro µ/100g	Comb. µ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muuestreo	Año	Autor	Código País	Fuente		
Fruit	Fruta	RA	FR	2.00	w	0.00	w								NA		4	1981	U.S Assembly of Life Sciences ¹³	US	C	1
Fruit	Fruta	RA	FR	2.7	mn	0.04	mn								HPLC		3	1998	Food Standards Agency ³	UK	D	3
Nuts	Frutos secos	RA	DR	0.58	mn	45	mn								HPLC		3	1998	Food Standards Agency ³	UK	D	3

MILK AND DAIRY PRODUCTS / LECHE Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente		
Cheese	Queso	NA	NA	1.61	w	0.079	w								NA	4	1982	French National Inventory ¹²	FR	C	1	
Cheese	Queso	NA	NA												tr	NA	4	1980	Klein et al. ²³	FR	C	1
Cheese	Queso	NA	NA										0.29-9.75		mn	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8
Cheese	Queso	NA	NA				0.05-0.50							w	GC	4	1980	Spiegelhalder ¹⁵	DE	C	11	
Cheese (Blue)	Queso Azul	NA	NA	0.00	w	0.00	w	0.043						w	NA	4	1980	Klein et al. ²³	FR	C	1	
Cheese (Camembert)	Queso Camembert	NA	NA	1.60	w	1029	w								NA	4	1981	U.S Assembly of Life Sciences ¹³	US	C	1	
Cheese (feta)	Queso Feta	NA	NA	0.05	w	0.40	w								NA	1	1997	Kyriakidis et al. ⁴	GR	D	4	
Cheese (Gruyere)	Queso Gruyere	NA	NA	0.06	w	0.40	w								NA	1	1997	Kyriakidis et al. ⁴	GR	D	4	
Cheese (Holland)	Queso Holandés	NA	NA	2.40	w	0.06	w								IDF	1	1997	Kyriakidis et al. ⁴	GR	D	4	
Cheese (Kasseri)	Queso Kasseri	NA	NA	0.05	w	0.40	w								IDF	1	1997	Kyriakidis et al. ⁴	GR	D	4	
Cheese (Kefalotyri)	Queso Kefalotyri	NA	NA	0.07	w	0.40	w							w	GC	1	1980	Spiegelhalder ¹⁵	GR	D	4	
Cheese (Pyrenees)	Queso del Pirineo	NA	NA	3.20	w	0.04	w								IDF	1	1997	Kyriakidis et al. ⁴	GR	D	4	
Cheese (Sant-Nectaire)	Queso Sant-Nectaire	NA	NA	1.56	w	0.107	w								IDF	1	1997	Kyriakidis et al. ⁴	GR	D	4	
Cheese (soft)	Queso blando	NA	NA	0.00	w	0.00	w	0.02						w	NA	4	1982	French National Inventory ¹²	FR	C	1	
Cheese (spread)	Queso para untar	NA	NA	1.47	w	1.89	w								NA	4	1980	Klein et al. ²³	FR	C	1	
Dairy products	Productos lácteos	NA	NA	2.70	mn	0.04	mn								HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Milk	Leche	NA	DR												tr	NA	1	1988	Osterdahl ²⁴	SE	D	10
Milk (non fat)	Leche descremada	NA	DR					nd-0.37							m	GC	3	1982	Havery et al. ²⁸	US	C	9
Milk (non fat)	Leche descremada	NA	DR					nd-0.45							w	NA	4	1980	Libbey et al. ²⁶	US	C	11

MILK AND DAIRY PRODUCTS / LECHE Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA µ/100g	NPIP µ/100g	NPYR µ/100g	NPro µ/100g	Comb. µ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Milk (non fat)	Leche descremada	NA	DR					0.03-0.07					mn	GC	3	1980	Sen et al. ²⁵	CA	C	9	
Milk (sour)	Leche (agria)	NA	NA						nd			0.08-11.9		mn	GC-TEA	1	1991	Xu et al. ³	CN	D	8
Milk (whole)	Leche entera	NA	NA									nd-3.70	12	w	GC	4	1982	Havery et al. ²⁸	US	C	11
Milk (whole)	Leche entera	NA	NA					nd-0.42					w	GC	4	1981	Lakritz and Pensabene ²⁷	US	C	11	
Milk (whole)	Leche entera	NA	NA	0.05	w	0.00	w						GC	4	1980	Mahieu et al. ²²	US	C	1		

CEREALS AND CEREAL PRODUCTS / CEREALES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Bread	Pan	NA	NP	2.50	w	0.13	w								NA	4	1982	French National Inventory ¹²	FR	C	1
Cereal (breaskfast)	Cereales de desayuno	RA	DR	0.250	w	0.13	w								NA	4	1982	French National Inventory ¹²	FR	C	1
Flour	Harina	RA	NP									0.02-1.44	1	mn	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8
Flour (wheat)	Harina de trigo	NA	NP	0.80	w	0.12	w								GC-TEA	1	1983	Pignatelli ²¹	CN	D	1
Pasta	Pasta	RA	NP	2.50	w	0.13	w								NA	4	1970	Aston ¹⁹	NA	C	1

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente		
Bacon	Bacon	FR	NA									nd-6.50	2	w	GC-TEA	1	1986	Canas et al. ³⁸	US	C	8	
Bacon	Bacon	NA	NA									50.0			mn	GC-TEA	1	1995	Fiddler et al. ⁶	US	D	6
Bacon	Bacon	NA	NA	7.70-23.5	mn	4.00-9.00	mn	nd-3.00						w	HPLC	4	1973	Fudge and Truman ³⁰	NA	C	2	
Bacon	Bacon	NA	SM					0.084						w	HPLC	4	1980	Klein et al. ²³	FR	C	1	
Bacon	Bacon	FR	NA									nd-0.20	5	mn	GC-TEA	4	1988	Pensabene and Fiddler ³⁹	US	C	11	
Bacon	Bacon	NA	NA					0.05-0.16	nd					mn	HPLC	2	1991	Tricker et al. ⁵	DE	D	5	
Bacon	Bacon	NA	NA									0.045-3.22	1	w	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8	
Bacon	Bacon	FR	NA									nd-6.50	14	mn	GC	4	1988	Canas et al. ³⁸	US	C	11	
Bacon	Bacon	NA	CU	3.20	mn	10.1	mn								HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Bacon	Bacon	NE	NA									nd-3.20	14	mn	GC	4	1982	Kimoto et al. ³²	US	C	11	
Bacon	Bacon	FR	NA									nd-0.42	14	mn	GC	4	1986	Vecchio et al. ¹⁶	US	C	11	
Beef	Carne de vaca/buey	NA	CA	1.26	mn	2.16	mn								HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Beef	Carne de vaca/buey	NA	CA	6.00-7.00	mn	1.50-2.30	mn								HPLC	4	1973	Fudge and Truman ³⁰	NA	C	2	
Beef	Carne de vaca/buey	NA	DR									117			mn	GC-TEA	1	1995	Fiddler et al. ⁶	US	D	6
Beef	Carne de vaca/buey	NA	CU	1.24	mn	5.18	mn								HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Beef	Carne de vaca/buey	NA	CA									0.53-0.66*	1	mn	TEA	1	2001	Haorah et al. ⁷	US	D	7	
Beef	Carne de vaca/buey	NA	CA									788			mn	GC-TEA	1	1995	Fiddler et al. ⁶	US	D	6
Chicken	Pollo	NA	CU	0.73	mn	0.82	mn								w	HPLC	3	1998	Food Standards Agency ³	SC	D	3
Frankfurt	Frankfurt	NA	NA									27.0			mn	GC-TEA	1	1995	Fiddler et al. ⁶	US	D	6

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Frankfurt	Frankfurt	NA	NA	25.7	mn	2.71	mn								HPLC	4	1982	French National Inventory ¹²	FR	C	1
Frankfurt	Frankfurt	NA	NA									0.01-2.02*	1	mn	TEA	1	2001	Haorah et al. ⁷	US	D	7
Frankfurt	Frankfurt	NA	NA	1.90-67.0	mn	0.00-9.60	mn	nd-8.40					w	HPLC	4	1983	von Collet ³³	DE	C	2	
Ham	Jamón	NA	CA	27.5	mn	2.20	mn							HPLC	4	1978	U.K.MAFF ³¹	UK	C	2	
Ham	Jamón	RA	CA							79.0			mn	GC-TEA	1	1995	Fiddler et al. ⁶	US	D	6	
Ham	Jamón	NA	CU	2.90	mn	7.20	mn							HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Ham	Jamón	NE	SM					0.01					w	HPLC	4	1980	Klein et al. ²³	FR	C	1	

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Ham	Jamón	NE	NA	130	mn	2.20	mn	0.04					w	HPLC	4	1983	von Collet ³³	DE	C	2	
Ham (chopped)	Chuleta de cerdo	NA	FR	0.92	mn	3.91	mn							HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Ham (mountain)	Jamón (de montaña)	NA	CU	16.3	mn	3.40	mn							HPLC	4	1982	French National Inventory ¹²	FR	C	1	
Ham (non smoked)	Jamón no ahumado	NA	CU					0.10					w	HPLC	4	1980	Klein et al. ²³	FR	C	1	
Ham (raw)	Jamón crudo	NA	SM					0.015					w	HPLC	4	1980	Klein et al. ²³	FR	C	1	
Ham (raw)	Jamón crudo	NA	SA	20.4-47.0	mn	2.10-3.10	mn							HPLC	4	1983	von Collet ³³	DE	C	2	
Meat	Carne	NA	CU	13.6	w	1.26	w							HPLC	4	1982	French National Inventory ¹²	FR	C	1	
Meat	Carne	NA	CU									nd-5.50	1	mn	9	4	1980	Sen et al. ²⁵	NA	C	11
Meat	Carne	RA	FR	1.00	w	0.10	w							HPLC	4	1981	US Assembly of Life Sciences ¹³	US	C	1	
Meat	Carne	NA	SM					nd-0.30						w	HPLC	4	1990	Walker ²	NA	C	2
Meat	Carne	RA	FR									0.03-0.07*	1	mn	TEA	1	2001	Haorah et al. ⁷	US	D	7
Meat	Carne	NA	CU									nd-0.10	1	mn	GC	4	1980	Maki et al. ³⁵	JP	C	11
Meat	Carne de vaca/buey	NA	CA	8.10	w	0.38	w	0.03						w	HPLC	4	1973	Panalaks et al. ⁴²	GR	C	1
Meat	Carne	SM	CU	13.9	w	1.20	w	0.35						w	HPLC	4	1973	Panalaks et al. ⁴²	GR	C	1
Meat	Carne	NA	CU									0.05-0.50	2	mn	GC	4	1980	Spiegelhalder et al. ¹⁵	NA	C	11
Meat	Carne de vaca/buey	NA	CA	1.90-4.90	mn	0.50-3.90	mn							HPLC	4	1983	von Collet ³³	DE	C	2	
Meat	Carne	NA	CU					nd-0.4						w	HPLC	4	1990	Walker ²	NA	C	2
Meat	Carne	NA	DR									0.06-6.02	1	w	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8
Meat	Carne	RA	FR									0.014-0.66	1	w	GC-TEA	1	1991	Xu et al. ⁸	CN	D	8

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor											Año	Autor	Código País	Fuente	
Meat (mince)	Carne picada	RA	CA	8.70	w	2.33	w									HPLC	4	1982	French National Inventory ¹²	FR	C	1
Meat (mince)	Carne picada	RA	CA	8.70	mn	2.30	mn	0.10							w	HPLC	4	1980	Klein et al. ²³	FR	C	1
Meat (products)	Productos cárnicos	NA	NA									nd-1.40	8	mn	GC-TEA	4	1988	Song and Hu ⁴⁰	CN	C	11	
Mutton	Cordero	NA	CU									nd-55.0	13	mn	GC	4	1984	Dennis et al. ³⁶	IS	C	11	
Offals	Vísceras	RA	FR	1.00	w	0.10	w	0.00						w	HPLC	4	1986	Howe et al. ²⁰	NA	C	1	
Offals	Vísceras	RA	FR					0.05-0.13						w	HPLC	2	1991	Tricker et al. ⁵	DE	D	5	
Pate	Paté	NA	CA	2.10	mn	0.40	mn								HPLC	4	1982	French National Inventory ¹²	FR	C	1	

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Pate (campagne)	Paté de campaña	NA	NA					0.02					w	HPLC	4	1980	Klein et al. ²³	FR	C	1	
Pate (chicken liver)	Paté de hígado de pollo	NA	FR	2.04	mn	3.42	mn							HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Pate (liver)	Paté de hígado	NA	FR	18.3	mn	0.89	mn							HPLC	4	1982	French National Inventory ¹²	FR	C	1	
Pork (chopped ham)	Chuleta de cerdo	NA	NA	11.0	mn	1.50	mn							HPLC	4	1978	U.K.MAFF ³¹	NA	C	2	
Pork (cured in rubber)	Cerdo curado en recipiente de caucho	NA	CU									0.05-5.60	7	mn	GC-TEA	4	1988	Sen et al. ³⁷	CA	C	11
Pork (luncheon meat)	Carne de cerdo preparada	RA	CA	10.7-20.5	mn	0.90-2.30	mn							HPLC	4	1998	Food Standards Agency ³	SC	C	2	
Pork (shoulder)	Espalda de cerdo	NA	CU	5.35	mn	10.2	mn							HPLC	3	1998	Food Standards Agency ³	SC	D	3	
Poultry	Pollo	RA	NA	1.00	w	0.10	w							HPLC	4	1992	Cornee et al. ¹	NA	C	1	
Poultry	Pollo	RA	FR					nd-0.025	nd-0.07	nd-0.03				mn	HPLC	2	1991	Tricker et al. ⁵	DE	D	5
Salami	Salami	NA	NA								131			mn	GC-TEA	1	1995	Fiddler et al. ⁶	US	D	6
Salami	Salami	NA	FR			0.33								w	HPLC	4	1980	Klein et al. ²³	FR	C	1
Salami	Salami	NA	FR								nd-3.00	6	mn	GC-TEA	1	1984	Yamamoto et al. ⁴³	JP	C	2	
Saucisson	Salchichón	NA	NA	3.30	w	1.80	w							HPLC	4	1982	French National Inventory ¹²	FR	C	1	
Saucisson	Salchichón	NA	NA					0.33						w	HPLC	4	1980	Klein et al. ²³	FR	C	1
Sausage	Salchicha	NA	NA								0.35-0.42	1	mn	TEA	1	2001	Haorah et al. ⁷	US	D	7	
Sausage	Salchicha	BO	NA	17.6	mn	0.94	mn							HPLC	4	1982	French National Inventory ¹²	FR	C	1	
Sausage	Salchicha	RA	FR	18.1	mn	2.60	mn							HPLC	4	1982	French National Inventory ¹²	FR	C	1	
Sausage	Salchicha	BO	NA			0.05-0.18	nd-0.05	nd					mn	HPLC	2	1991	Tricker et al. ⁵	DE	D	5	
Sausage (garlic)	Salchicha con ajo	RA	NA	24.8	mn	1.80	mn							HPLC	4	1982	French National Inventory ¹²	FR	C	1	

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor									Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Sausage (liver)	Salchicha de hígado	NA	NA	3.43	mn	9.37	mn								HPLC	3	1998	Food Standards Agency ³	SC	D	3
Tongue	Lengua curada	NA	CU	1.04	mn	1.59	mn								HPLC	3	1998	Food Standards Agency ³	SC	D	3
Tongue	Lengua curada	RA	CU	7.00	mn	1.50	mn								HPLC	4	1978	U.K.MAFF ³¹	UK	C	2

FISH / PESCADO

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA µ/100g	NPIP µ/100g	NPYR µ/100g	NPro µ/100g	Comb. µ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Fish	Pescado	BR	NA									nd-31.3	4	w	GC	4	1980	Matsui et al. ⁴⁴	JP	C	11
Fish	Pescado	RA	CA									nd-1.00	1	w	GC	4	1980	Maki et al. ³⁵	JP	C	11
Fish	Pescado	SM	DR									nd-1.00	1	w	GC	4	1980	Maki et al. ³⁵	JP	C	11
Fish	Pescado	RA	SM					0.12	nd	nd				mn	NA	1	1988	Osterdahl ²⁴	SE	C	10
Fish	Pescado	BR	NA					0.01-0.20						w	GC	4	1982	Key et al. ⁴⁵	GB	C	11
Fish	Pescado	BR	NA									nd-1.00	1	w	GC	4	1980	Maki et al. ³⁵	JP	C	11
Fish	Pescado	NE	NA									nd-3.70	4	w	GC	4	1984	Yamamoto et al. ⁴³	JP	C	11
Fish	Pescado	NA	CA									nd-140	9	w	GC	4	1981	Huang et al. ⁴⁷	HK	C	11
Fish	Pescado	NA	CA									0.050-8.90	11	w	GC	4	1988	Siddiqi et al. ¹⁷	IN	C	11
Fish (pickled)	Pescado conservado en vinagre	RA	CA					nd-0.22						w	GC	4	1981	Pedersen and Meyland ⁴⁶	DE	C	11
Fish (processed)	Pescado procesado	NA	CA									nd-3.9	10	w	GC	4	1984	Yamamoto et al. ⁴³	JP	C	11
Herring	Arenque	SM	DR					0.00					20.8	w	TEA	1	2001	Haorah et al. ⁷	US	D	7
Seafood	Marisco	RA	FR					nd-13.1						w	GC	4	1988	Song and Hu ⁴⁰	CN	C	11

EGGS / HUEVOS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA µ/100g	NPIP µ/100g	NPYR µ/100g	NPro µ/100g	Comb. µ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Egg	Huevo	RA	NA	0.49	mn	0.17	mn								HPLC	3	1998	Food Standards Agency ³	SC	D	3

FATS (ADDED) / GRASAS (AÑADIDAS)

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Margarine	Margarina	NA	NP									nd-0.14	1	w	GC	4	1986	Sen and Baddo ⁴⁹	CA	C	11
Oil	Aceite	NA	NP				nd-0.38							w	GC	4	1981	Sen and Seaman ⁴⁸	CA	C	11
Oil	Aceite	NA	NP				nd-0.10							w	GC	4	1974	Fiddler et al. ⁵⁰	US	C	11

ALCOHOLIC BEVERAGES / BEBIDAS ALCOHÓLICAS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Beer	Cerveza	NP	NP									nd-<0.05	2	w	GC	4	1980	Kawabata et al. ⁵²	JP	C	11
Beer	Cerveza	NP	NP												NA	4	1980	Klein et al. ²³	NA	C	1
Beer	Cerveza	NP	NP					0.03	nd	nd				mn	NA	1	1988	Osterdahl ²⁴	SE	C	10
Beer	Cerveza	NP	NP					nd-0.49							GC	4	1980	Sen et al. ²⁵	JP	C	11
Beer	Cerveza	NP	NP												GC	4	1980	Spiegelhalder et al. ¹⁵	DE	C	11
Beer	Cerveza	NP	NP	1.70	w	0.02	w	0.044						w	NA	4	1992	Cornee et al. ¹	NA	C	1
Beer	Cerveza	NP	NP					nd-6.8							NA	4	1990	Walker ²	UK	C	2
Cider	Sidra	NP	NP					1.4						w	GC	4	1980	Scalan et al. ⁵³	JP	C	11
Spirits	Licores	NP	NP					0.038				nd-8.6	2	w	GC	4	1982	Havery et al. ²⁸	US	C	11
Whisky	Whisky	NP	NP									0.09-2.30	13	w	GC	4	1983	McWeeny ¹⁸	UK	C	11
Whisky	Whisky	NP	NP					0.019						w	GC	4	1988	Song and Hu ⁴⁰	CN	C	11
Wine	Vino	NP	NP									nd-0.33	2	w	GC	4	1988	Osterdahl ⁵⁴	SE	C	11
Wine	Vino	NP	NP					nd-0.059						w	GC	4	1980	Scalan et al. ⁵³	US	C	11

NON ALCOHOLIC BEVERAGES / BEBIDAS NO ALCOHÓLICAS

Food	Alimento	Cooking method	Preservation method	Nitrates mg/100g	Value	Nitrites mg/100g	Value	NDMA μ/100g	NPIP μ/100g	NPYR μ/100g	NPro μ/100g	Comb. μ/100g	Type NOC	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Método Conservación	Nitratos mg/100g	Valor	Nitritos mg/100g	Valor						Tipo NOC	Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Cocoa	Cacao	NA	NP	0.00	w			0.05	nd	0.1			w	NA	1	1988	Osterdahl ²⁴	SE	C	10	
Coffee	Café	NA	NP	0.00	w			0.00					w	NA	4	1979	Walker et al. ⁵¹	NA	C	1	
Coffee	Café	NA	NP					0.02	0.01				w	NA	1	1988	Osterdahl ²⁴	SE	C	10	
Fruit (juices)	Zumo de frutas	NA	NP	0.00	w			0.00					w		4	1979	Walker et al. ⁵¹	NA	C	1	
Soda	Soda	NA	NP	0.00	w			0.00					w	NA	4	1979	Walker et al. ⁵¹	NA	C	1	
Tea	Té	NA	NP	0.00	w			0.00					w	NA	4	1979	Walker et al. ⁵¹	NA	C	1	
Tea	Té	NA	NP					0.02	0.01				w		1	1988	Osterdahl ²⁴	SE	C	10	
Tea	Té	NA	NP									0.20-1.50	13	w	GC	4	1988	Siddiqi et al. ¹⁷	IN	C	11

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HETEROCYCLIC AMINES / AMINAS HETEROCÍCLICAS



MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Bacon	Bacon	FR	na	170	12-16	nd-53	0.9-27	nd-2.4				n.a	NA	4	1993	Gross et al. ¹⁸	CH	C	7
Bacon	Bacon	FR	na	150		0.2-1	2.5-2.8	1-3.4		38-10.5	nd-1.70	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Bacon	Bacon	MW	na			0.00	0.10	0.00	0.10			n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon	Bacon	FR	na	225		1.6-2.7	0.9-1.2	0.2-0.3				n.a	NA	4	2003	Knize et al. ¹⁷	US	C	7
Bacon	Bacon	FR	na	150-225	2-4	0.3-4.5	nd-23.70	0.2-1.4		nd	nd	n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Bacon	Bacon	FR	na			18.6	27.8	2.82	0.00			n.a	NA	4	1995	Skog et al. ²¹ Thiebaud et al. ²⁵	SE/US	C	9
Bacon	Bacon	FR	na	208	6	106	45	12		nd		n.a	NA	4	1995	Thiebaud et al. ²⁵	US	C	7
Bacon	Bacon	MW	vwd			3.1	1.50	0.20		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon	Bacon	FR	vwd			4.8	4.30	0.50		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon	Bacon	BR	vwd			46.2	0.60	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon	Bacon	MW	wd			0.00	0.40	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon	Bacon	FR	wd			0.71	1.70	0.00		1.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon	Bacon	BR	wd			5.71	1.6	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon	Bacon	FR	me	200		0.11	0.22	0.00				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Bacon	Bacon	FR	me	176	4	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Bacon	Bacon	FR	vwd	176	16.1	0.60	2.30					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Bacon	Bacon	FR	wd	200		1.93	3.79	0.00				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Bacon	Bacon	FR	wd	177	8.8	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Bacon (fatty)	Bacon graso	FR	na			2.7	1.2	0.3	0.10			n.a	NA	4	1993	Gross et al. ¹⁸	CH	C	9

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción									Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Bacon (fatty)	Bacon graso	FR	na			2.70	1.20	0.30				mn	GC-MS	3	1993	Murray et al. ²⁸	UK	D	28
Bacon (fatty)	Bacon graso	FR	vwd			2.28	0.57	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon (fatty)	Bacon graso	FR	wd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Bacon (lean)	Bacon magro	FR	na			1.60	0.90	0.20				mn	GC-MS	3	1993	Murray et al. ²⁸	UK	D	28
Bacon (pan residues)	Bacon (restos en la sartén)	FR	na	150		nd	2-5.9	0.2-1.7		nd	nd	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Bacon (pan residues)	Bacon (restos en la sartén)	FR	na	150-225	3	0.06-0.80	nd-0.90	nd		nd	nd	n.a	NA	4	1995	Sujimura et al. ¹⁴	SE	C	7
Beef	Carne de vaca/buey	NA	me			0.53	0.138	nd		nd	0.125	n.a	GC	1	2002	Kataoka et al. ⁵⁸	JP	D	58
Beef	Carne de vaca/buey	GR	na			14.0	6.00	1.20				n.a	NA	4	1997	Fay et al. ³⁸	CH	C	7
Beef	Carne de vaca/buey	FR	na				8.15	3.9		190		n.a	NA	4	1991	Felton et al. ¹³	US	C	9
Beef	Carne de vaca/buey	FR	na		14		8.70	4.10		2.00		mn	CZE	3	1998	Mardones et al. ²⁷	ES	D	27

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhilP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Beef	Carne de vaca/buey	BA	na	200-500	15		4.00					8	n.a	NA	4	1996	Rivera et al. ⁴¹	ES	C	7
Beef	Carne de vaca/buey	NE	na			0.00-20.0	0.00-8.00		0.00-20.0			p	NA	4	2002	Skog et al. ²	SE	C	2	
Beef	Carne de vaca/buey	GR	na			27.0	2.11			0.19		n.a	NA	4	1993	Wakabayashi et al. ⁴⁵	JP	C	7	
Beef	Carne de vaca/buey	NA	wd			0.63	0.198	nd		nd	0.94	n.a	GC	1	2002	Kataoka et al. ⁵⁸	JP	D	58	
Beef	Carne de vaca/buey	BK	me			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef	Carne de vaca/buey	BK	wd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	BR	me			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	BA	me			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	FR	me			0.00	1.00	0.14		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	FR	na				0.64	0.12				n.a	NA	4	1993	Wakabayashi et al. ⁴⁵	JP	C	7	
Beef (minced)	Carne de vaca/buey picada	BR	vwd			0.00	1.61	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	FR	vwd			2.32	4.25			0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	BA	vwd			8.39	1.39	0.15	0.00	0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	BR	wd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	FR	wd			0.00	2.35	0.00		29.0		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (minced)	Carne de vaca/buey picada	BA	wd			6.00	2.23	4.33	4.15	0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Beef (extract)	Concentrado de carne de vaca	NA	na			5.07	nd			nd	5.77	n.a	NA	4	1996	Galceran et al. ⁴³	ES	C	7	
Beef (extract)	Concentrado de carne de vaca	NA	na								15.0		n.a	NA	4	1996	Ghoshal and Snyderwine ⁴⁴	ES	C	7
Beef (extract)	Concentrado de carne de vaca	NA	na			0.20	30.0	nd		nd	nd	n.a	NA	4	1996	Holder et al. ³⁹	SE	C	7	

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Beef (extract)	Concentrado de carne de vaca	NA	na			< 0.10	0.60	< 0.10				n.a	NA	4	1993	Murray et al. ²⁸	UK	C	7
Beef (extract)	Concentrado de carne de vaca	NA	na			nd-10.0	nd	nd		nd	nd	n.a	NA	4	1997	Pais et al. ^{47, 48}	ES	C	7
Beef (extract)	Concentrado de carne de vaca	NA	na				9.30				10.4	n.a	NA	4	1997	Puignou et al. ⁴⁶	ES	C	7
Beef (extract)	Concentrado de carne de vaca	NA	na				3.10					n.a	NA	4	1993	Wakabayashi et al. ⁴⁵	JP	C	7
Beef (minced pan residues)	Carne de vaca/buey picada (restos en la sartén)	FR	na			2.50	1.75	0.85				n.a	NA	4	1995	Johansson et al. ²⁴	SE	C	9
Beef (minced)	Carne de vaca/buey picada	FR	na	200-250	6	0.70-13.3	nd-5.10	0.10-1.20		nd-1.00		n.a	NA	4	1994	Felton et al. ¹⁹	US	C	7

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhilP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Beef (minced)	Carne de vaca/buey picada	GR	na			0.30	nd	nd		nd	nd	n.a	NA	4	1996	Holder et al. ³⁹	SE	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	180-190	6	1.20	0.03-2.80	nd-0.70		nd-0.10	nd	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	165-200		0.80-1.50	0.20-1.60	nd-0.40				n.a	NA	4	1995	Johansson et al. ⁵⁴	SE	C	7
Beef (minced)	Carne de vaca/buey picada	GR	na			nd	0.40	0.10			0.04	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Beef (minced)	Carne de vaca/buey picada	BA	na		10	nd	0.1	0.20		nd	nd	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Beef (minced)	Carne de vaca/buey picada	BA	na			38.0	4.40	2.70		1.60		n.a	NA	4	1995	Knize et al. ⁸	US	C	7
Beef (minced)	Carne de vaca/buey picada	GR	na			11.0-290	nd-0.89	nd-0.30				n.a	NA	4	1996/1997	Knize et al. ^{42, 53}	US	C	7
Beef (minced)	Carne de vaca/buey picada	GR	na			0.10-0.60	< 0.10-0.30	< 0.10-0.10				n.a	NA	4	1995	Knize et al. ⁸	US	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	230	12	4.10	1.10	0.25		0.25		n.a	NA	4	1995	Knize et al. ⁸	US	C	7
Beef (minced)	Carne de vaca/buey picada	GR	na			nd	0.26-0.68	0.10-0.28				n.a	NA	4	1998	Knize et al. ⁸	US	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	150-230	6	nd-32.0	nd-7.30	nd-1.60		nd-0.70		n.a	NA	4	1994	Knize et al. ⁵²	US	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	150-225	3.5	4.00	3.50	0.30				n.a	NA	4	1997	Reistad et al. ⁴⁹	NO	C	7
Beef (minced)	Carne de vaca/buey picada	GR	na	180-200	12	50.0	2.20	nd				n.a	NA	4	1997	Reistad et al. ⁴⁹	NO	C	7
Beef (minced)	Carne de vaca/buey picada	GR	na	100-90	20	nd	nd	nd				n.a	NA	4	1994	Sinha et al. ⁵¹	US	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	250	11	32.8	9.00	2.10				n.a	NA	4	1994	Sinha et al. ⁵¹	US	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	150-225	6	0.01-1.10	nd-2.20	nd-0.80		nd	nd	n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	198-277	6	4.90-68	4.30	1.30				n.a	NA	4	1995	Thiebaud et al. ²⁵	US	C	7
Beef (minced)	Carne de vaca/buey picada	FR	na	277	7	67.5	16.40	4.50				n.a	NA	4	1994	Thiebaud et al. ⁵⁰	US	C	7
Beef (minced, pan residue)	Carne de vaca/buey picada (restos sartén)	FR	na	180-190	6	nd	0.6-5.3			nd-1.50	1.70	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Beef (minced, pan residue)	Carne de vaca/buey picada (restos en la sartén)	FR	na	150-225	6	0.08-11.2	0.06-5.80	0.02-1.10		nd	nd	n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Beef (minced, pan residue)	Carne de vaca/buey picada (restos en la sartén)	FR	na	165-200		0.40-13.3	0.80-4.30	0.40-1.30		nd	nd	n.a	NA	4	1995	Johansson et al. ⁵⁵	SE	C	7
Beef (minute steak)	Filete de carne de vaca/buey	FR	na	150-225	3.5	0.02-12.7	nd-6.20	nd-2.70				n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Beef (minute steak, pan residues)	Filete de carne vacuna (restos en la sartén)	FR	na	150-225	3.5	0.20-82.4	0.10-23.3	0.10-4.10				n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Beef (minute steak, pan residues)	Filete de carne vacuna (restos en la sartén)	FR	na			23.4	15.4	5.8				n.a	NA	4	1994	Gross et al. ¹⁸	CH	C	9
Beef (steak)	Filete de vaca/buey	GD	me			10.0	1.70	0.10				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhilP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Beef (steak)	Filete de vaca/buey	BA	me			12.0	1.10	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Beef (steak)	Filete de vaca/buey	FR	me			0.00	1.94	0.12		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	BR	me			2.08	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	BA	me			4.71	0.64	0.00		0.00	0.00	n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	FR	me	200		0.29	0.00	0.06				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Beef (steak)	Filete de vaca/buey	FR	na			2.16	4.30	0.93		0.10		n.a	NA	4	1995	Skog et al. ²¹	SE	C	9
Beef (steak)	Filete de vaca/buey	BA	vwd			5.70	1.20	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Beef (steak)	Filete de vaca/buey	GD	vwd			9.00	2.40	0.40				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Beef (steak)	Filete de vaca/buey	FR	vwd			23.2	8.19	1.30		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	BA	vwd			33.3	5.78	1.90	0.00	0.00	0.00	n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	BR	vwd			7.08	1.51	0.19		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	FR	vwd	200		7.33	3.80	0.80				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Beef (steak)	Filete de vaca/buey	FR	wd			6.53	4.07	0.45		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	BA	wd			8.70	2.17	0.00	0.00	0.00	0.00	n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Beef (steak)	Filete de vaca/buey	FR	wd	200		0.73	0.25	0.07				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Beef (steak)	Filete de vaca/buey	BA	me			12.0	1.10	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Beef (steak)	Filete de vaca/buey	FR	na		14		5.00	1.80		12.5		mn	CZE	2	1998	Mardones et al. ²⁷	ES	D	27
Beef (steak)	Filete de vaca/buey	BA	wd			15.0	1.60	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Beef (steak)	Filete de vaca/buey	GD	wd			6.80	1.80	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción									Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Beef (stock-cube)	Carne de vaca/buey (cubitos)	NA	na			0.30	0.60	0.30				mn	GC-MS	3	1998	Murray et al. ²⁸	UK	D	28
Bologna	Mortadela	FR	me			0.88	nd			0.25		mn	HPLC-MS	3	2003	Holder et al. ³⁰	UK	D	30
Breast	Pechuga de pollo	BR	na	200	38	0.1	nd	nd		nd		n.a	NA	4	2003	Solyakov and Skog ⁶⁰	SE	C	59
Breast	Pechuga de pollo	MW	na	160		nd	nd	nd				n.a	NA	4	2003	Solyakov and Skog ⁶⁰	SE	C	59
Chicken	Pollo	NA	na			6.40	0.54	nd				n.a	NA	4	1999	Knize et al. ^{42, 53}	US	C	7
Chicken	Pollo	GR	na		14-26	44.0-315	0.80-1.70					n.a	NA	4	1995	Knize et al. ⁵³	US	C	7
Chicken	Pollo	GR	na			21.0-270	nd-0.63	0.53-3.10				n.a	NA	4	1998	Knize et al. ⁵³	US	C	7
Chicken	Pollo	BA	na			270	nd	3.10				n.a	NA	4	1998	Knize et al. ⁴²	US	C	7
Chicken	Pollo	BA	na				0.30	0.10				n.a	NA	4	2003	Murray et al. ²⁸	UK	C	7
Chicken	Pollo	BR	na			38.1	2.33	0.81	0.21			n.a	NA	4	2003	Sugimura et al. ¹⁴ Hayatsu et al. ¹⁵	JP	C	9
Chicken	Pollo	STW	na			nd	nd	nd				n.a	NA	4	2003	Sinha et al. ⁵¹	US	C	7

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		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Chicken	Pollo	BA	na		10-63	27.0-480	nd-9.00	nd-2.00				n.a	NA		4	1994	Sinha et al. ⁵¹	US	C	7
Chicken	Pollo	FR	na		9-43	6.00-150	nd-3.00	nd				n.a	NA		4	1994	Sinha et al. ⁵¹	US	C	7
Chicken	Pollo	ROA	na	150-200	30	< 0.30	nd	nd				n.a	NA		4	1997	Skog et al. ⁴⁰	SE	C	7
Chicken	Pollo	FR	na	175-225	15	0.50-10.0	0.40-0.50	0.20-0.50				n.a	NA		4	1997	Skog et al. ⁴⁰	SE	C	7
Chicken	Pollo	ROA	na	175		nd	nd	nd				n.a	NA		4	1997	Skog et al. ⁴⁰	SE	C	7
Chicken	Pollo	NE	na			0.00-1.00	0.00-3.00		0.00-40.0			p	NA		4	2002	Skog et al. ²	SE	C	2
Chicken	Pollo	GR	na			0.11	0.051	0.0195				mn	GC		2	1993	Tikkanen et al. ¹¹	FI	D	11
Chicken	Pollo	NA	na			nd-0.01	nd-0.10	nd-0.08				n.a	NA		4	1993	Tikkanen et al. ¹¹	FI	C	7
Chicken	Pollo	GR	na			2.33	0.81					n.a	NA		4	1993	Wakabayashi et al. ⁴⁵	JP	C	7
Chicken	Pollo	BO	na	100	23	nd	nd	nd				n.a	NA		4	2002	Solyakov and Skog ⁶⁰	SE	C	59
Chicken	Pollo	ROA	na	20		3.85	2.70	1.65		nd		mn	HPLC-MS		2	1998	Richling et al. ²⁹	DE	D	29
Chicken	Pollo	BA	na			nd	0.30	0.10				mn	GC-MS		3	1993	Murray et al. ²⁸	UK	D	28
Chicken (breast skin)	Pechuga de pollo sin piel	BR	wd			131	0.00	0.00				n.a	NA		4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast non skin)	Pechuga de pollo sin piel	BA	me			27.0	0.00	0.00		0.00	0.00	n.a	NA		4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast non skin)	Pechuga de pollo sin piel	FR	vwd			70.0	3.00	4.00		0.00	0.00	n.a	NA		4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast non skin)	Pechuga de pollo sin piel	BR	vwd			150	3.00	0.00		0.00	0.00	n.a	NA		4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast non skin)	Pechuga de pollo sin piel	BA	vwd			480	9.00	1.00		0.00	0.00	n.a	NA		4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast non skin)	Pechuga de pollo sin piel	FR	vwd			70.0		4.00		0.00	0.00	n.a	NA		4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast non skin)	Pechuga de pollo sin piel	BA	wd			140	2.00	1.00				n.a	NA		4	1995	Sinha et al. ³⁷	US	C	9

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Chicken (breast non skin)	Pechuga de pollo sin piel	FR	wd			37.0	2.00	2.00				n.a	NA	4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast non skin)	Pechuga de pollo sin piel	BR	wd			64.0	0.00	0.00				n.a	NA	4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast skin)	Pechuga de pollo con piel	FR	wd			25.0	0.00	0.00				n.a	NA	4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast skin)	Pechuga de pollo con piel	BA	wd			36.0	0.00	0.00				n.a	NA	4	1995	Sinha et al. ³⁷	US	C	9
Chicken (breast)	Pechuga de pollo	NA	na			0.00	0.00	0.00		0.00		n.a	NA	2	1998	Knize et al. ¹⁶	US	C	16
Chicken (breast)	Pechuga de pollo	BA	na			270	0.00	3.10	170			n.a	NA	4	1995	Sinha et al. ³⁷	US	C	9
Chicken (dark meat)	Pollo (carne oscura)	GR	na			0.59	0.40	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Chicken (fast breast)	Pechuga de pollo	NA	na			0.00	0.00	0.00		0.00		n.a	NA	2	1998	Knize et al. ¹⁶	US	C	16
Chicken (fast food)	Pollo (comida rápida)	NA	na			nd	nd	nd				mn	HPLC-FL	1	1995	Knize et al. ⁸	US	D	8

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min) Tiempo (min)	PhIP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción									Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Chicken (from sandwich)	Pollo (en sandwich)	BR	na			0.66	0.48	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Chicken (gravy)	Pollo en salsa	BK	na			0.00	0.57	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Chicken (marinated)	Pollo marinado	GR	na		14-26							n.a	NA	4	1997	Knize et al. ⁵⁶	SE	C	7
Chicken (non skin)	Pollo sin piel	FR	me	200		0.20	0.11	0.00				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Chicken (non skin)	Pollo sin piel	FR	wd	200		17.5	2.27	2.26				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Chicken (nuggets)	Croquetas de pollo	NA	na	20		0.10	0.20	0.40		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	D	29
Chicken (pan residues)	Pollo (restos en la sartén)	ROA	na	175		nd	nd	nd				n.a	NA	4	1995	Sinha et al. ³⁷	US	C	7
Chicken (pan residues)	Pollo (restos en la sartén)	FR	na	150-225	15	0.02-1.00	0.08-0.60	nd-0.30				n.a	NA	4	1995	Sinha et al. ³⁷	US	C	7
Chicken (pan residues)	Pollo (restos en la sartén)	GR	na	150-200	30	0.09-0.60	nd-0.02	nd-0.01				n.a	NA	4	1995	Sinha et al. ³⁷	US	C	7
Chicken (thigh leg)	Pierna de pollo	NA	na			0.00	0.00	0.00		0.00		n.a	NA	4	1998	Knize et al. ¹⁶	US	C	9
Chicken (white meat)	Pollo (carne blanca)	GR	na			0.75	0.45	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Chicken liver (pan residues)	Higado de pollo (restos en la sartén)	FR	na	190	9	nd	nd	nd				n.a	NA	4	2002	Solyakov and Skog ⁶⁰	SE	C	59
Duck	Pato	ROA	na	20		3.10	2.40	0.20		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	D	29
Ham	Jamón	FR	me	175	5	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Ham	Jamón	FR	vwd	176	19	nd	1.80					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Ham	Jamón	FR	wd	176	12	0.30	0.60					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Ham (pork steak)	Filete de jamón de cerdo	FR	na			5.70	1.60	0.00	0.00			n.a	NA	4	1995	Sinha et al. ³⁷	US	C	9
Ham slice	Loncha jamón	FR	vwd			0.00	1.80	0.20		0.60		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Ham slice	Loncha jamón	BR	vwd			0.00	0.35	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min) Tiempo (min)	PhIP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value Valor	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Ham slice	Loncha jamón	BR	wd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Ham slice	Loncha jamón	FR	wd			0.30	0.60	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Hamburger	Hamburguesa	NA	na	20		0.40	0.40	nd		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	D	29
Hamburger (fast-food)	Hamburguesa (comida rápida)	NA	na			0.23	0.15	0.017				mn	HPLC-FL	1	1995	Knize et al. ⁸	US	D	8
Hamburger (restaurant)	Hamburguesa de restaurante	GD	me			1.90	1.50	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Hamburger (restaurant)	Hamburguesa de restaurante	BA	me			5.20	0.20	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Hamburger (restaurant)	Hamburguesa de restaurante	BA	vwd			18.4	1.80	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Hamburger (restauránt)	Hamburguesa de restaurante	GD	vwd			2.60	1.30	0.10				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Hamburger (restaurant)	Hamburguesa de restaurante	BA	wd			1.80	0.40	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Hamburger (restaurant)	Hamburguesa de restaurante	GD	wd			4.40	1.80	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.	
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Hamburguer (commercial frozen)	Hamburguesa comercial congelada	MW	na		12	0.10	nd				nd		mn	HPLC-MS	3	1997	Holder et al. ³⁰	UK	D	30
Hotdog	Frankfurt	FR	me	175	4	nd	nd						mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Hotdog	Frankfurt	BK	me	180	3	nd	nd						mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Hotdog	Frankfurt	BA	me	232	5	nd	nd						mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Hotdog	Frankfurt	BR	vwd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Hotdog	Frankfurt	BA	vwd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Hotdog	Frankfurt	FR	vwd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Hotdog	Frankfurt	FR	vwd	177	18	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31	
Hotdog	Frankfurt	BK	vwd	185	10	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31	
Hotdog	Frankfurt	BA	vwd	252	15	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31	
Hotdog	Frankfurt	BR	wd			0.00	0.19	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Hotdog	Frankfurt	BA	wd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Hotdog	Frankfurt	FR	wd			0.00	0.10	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9	
Hotdog	Frankfurt	FR	wd	177	9	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31	
Hotdog	Frankfurt	BK	wd	182	6	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31	
Hotdog	Frankfurt	BA	wd	260	8	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31	
Hotdog	Frankfurt	BO	wd	100	5	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31	
Hotdog	Frankfurt	FR	me			1.90	0.23			0.53		mn	HPLC-MS	3	1997	Holder et al. ³⁰	UK	D	30	
Hotdog (turkey)	Frankfurt de pavo	FR	me			4.40	4.20			0.51		mn	HPLC-MS	3	1997	Holder et al. ³⁰	UK	D	30	

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Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min) Tiempo (min)	PhIP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción			Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente							
Lamb (chops)	Chuleta de cordero	FR	na	150-225	9	nd-1.50	nd-0.40	nd-0.60				n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Lamb (chops, pan residues)	Chuleta de cordero (restos en la sartén)	FR	na	150-225	9	< 0.01-2.30	0.08-0.60	0.04-0.30				n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Lamb (mutton)	Carne de cordero	GR	na					0.67				n.a	NA	4	1993	Wakabayashi et al. ⁴⁵	JP	C	7
Lamb/mutton (chops)	Costilla de cordero	FR	me	200		0.00	0.40	0.00				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Lamb/mutton (chops)	Costilla de cordero	FR	wd	200		2.40	1.00	0.00				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Meat (commercial extract)	Extracto de carne comercial	NA	na			nd	nd	nd				mn	CZE	2	1998	Mardones et al. ²⁷	ES	D	27
Meat (cuts)	Tacos de carne	NA	na			nd	nd-0.40	nd		nd	nd	n.a	NA	4	1997	Stavric et al. ⁵⁷	CA	C	7
Meat (extract)	Extracto de carne	NA	na			nd-7.50	29.0-46.0	4.80-6.20		nd	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Meat (sauce)	Carne en salsa	FR	na	150-225	6	0.07-2.10	nd-1.10	nd-0.4		nd	nd	n.a	NA	4	1998	Skog et al. ⁷	SE	C	7
Meat (steak)	Filete de carne	FR	me			0.60	0.50	0.10				mn	GC-MS	3	1993	Murray et al. ²⁸	UK	D	28

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		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Meatballs	Albóndigas	FR	na	150-225	7.5	nd-0.10	nd-0.80	nd-0.30		nd	nd	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Meatballs	Albóndigas	NA	na	20		nd	0.20	nd		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	D	29
Meatballs	Albóndigas	FR	na			0.14	0.39	0.09		5.00		n.a	NA	4	1995	Skog et al. ²¹	US	C	9
Meatballs (pan residues)	Albóndigas (restos en la sartén)	FR	na	150-225	7.5	0.03-0.50	0.02-0.70	0.02-0.10		0.05	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Meatloaf	Pastel de carne	GR	na	150	55	0.30	0.10	nd		nd	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Meatloaf (pan residues)	Pastel de carne (restos en la sartén)	GR	na	150	55	nd	0.04	0.03		nd	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Ox	Buey	ROA	na	20		0.50	5.20	0.40		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	D	29
Patty (beef)	Hamburguesa de carne de vaca/buey	FR	me	200		0.00	0.29	0.03				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Patty (beef)	Hamburguesa de carne de vaca/buey	FR	na			16.4	2.20	0.70				mn	GC-MS	3	1993	Murray et al. ²⁸	UK	D	28
Patty (beef)	Hamburguesa de carne de vaca/buey	FR	na	275	5		2.70	nd		0.30		mn	HPLC-MS	3	1988	Turesky et al. ²⁶	CH	D	26
Patty (beef)	Hamburguesa de carne de vaca/buey	FR	na	275	10		4.20	nd		0.30		mn	HPLC-MS	3	1988	Turesky et al. ²⁶	CH	D	26
Patty (beef)	Hamburguesa de carne de vaca/buey	FR	na	275	15		12.3	3.90		1.90		mn	HPLC-MS	3	1988	Turesky et al. ²⁶	CH	D	26
Patty (beef)	Hamburguesa de carne de vaca/buey	FR	wd	200		3.96	1.12	0.29				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Patty (beef)	Hamburguesa de carne de vaca/buey	NA	na			nd	nd	nd				mn	GC	2	1993	Tikkanen et al. ¹¹	FI	D	11
Pork	Cerdo	NE	na			0-0.10	0.00-5.00		0.00-15.0		p	NA	4	2002	Skog et al. ²	SE	C	2	
Pork	Cerdo	FR	na	200			nd-0.40			nd	nd	n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Pork	Cerdo	GR	na			0.75	0.12	0.055				mn	GC	2	1993	Tikkanen et al. ¹¹	FI	D	11
Pork	Cerdo	GR	na			nd-3.80				0.10	nd	n.a	NA	4	1993	Tikkanen et al. ¹¹	FI	C	7

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		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Pork	Cerdo	BA	na			4.20	0.40	0.10				mn	GC-MS	3	1993	Murray et al. ²⁸	UK	D	28
Pork	Cerdo	NA	na	20		0.40	1.30	0.30		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	D	29
Pork (belly pan residues)	Vientre de cerdo (callos) restos en la sartén	FR	na			1.98	0.52	0.05		0.10		n.a	NA	4	1995	Skog et al. ²¹	SE	C	9
Pork (belly)	Vientre de cerdo (callos)	FR	na	150-225	3	0.02-12.4	nd-2.90	nd-0.70		0.10	0.10	n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Pork (belly)	Vientre de cerdo (callos)	FR	na			3.35	0.82	0.70				n.a	NA	4	1995	Skog et al. ²¹	SE	C	9
Pork (belly pan residues)	Vientre de cerdo (callos) restos en la sartén	FR	na	150-225	3	0.04-4.00	nd-0.90	nd-0.20		nd	nd	n.a	NA	4	1993	Tikkanen et al. ¹¹	FI	C	7
Pork (chop)	Chuleta de cerdo	FR	me	175	5	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Pork (chop)	Chuleta de cerdo	FR	na			1.21	0.75	0.29				n.a	NA	4	1996	Skog et al. ²¹	SE	C	9
Pork (chop)	Chuleta de cerdo	FR	na	150-225	8.5	nd-4.80	nd-2.60	nd-1.10		nd	nd	n.a	NA	4	1998	Skog et al. ²¹	SE	C	7

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		Método cocción	Grado de cocción									Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Pork (chop)	Chuleta de cerdo	BR	vwd			0.00	0.52	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Pork (chop)	Chuleta de cerdo	FR	vwd			0.00	3.83	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Pork (chop)	Chuleta de cerdo	FR	vwd	176	15	nd	3.80					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Pork (chop)	Chuleta de cerdo	BR	wd			0.00	0.00	0.00		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Pork (chop)	Chuleta de cerdo	FR	wd			0.00	1.34	0.20		0.00		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Pork (chop)	Chuleta de cerdo	FR	wd	176	9	nd	1.30					mn	HPLC-MS	1	1998	Sinha et al. ³¹	US	D	31
Pork (chop, pan residues)	Chuleta de cerdo (restos en la sartén)	FR	na			1.75	1.12	0.25		0.10		n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	9
Pork (chop, pan residues)	Chuleta de cerdo (restos en la sartén)	FR	na	150-225	8.5	0.02-3.80	nd-1.90	nd-0.50		nd	nd	n.a	NA	4	1998	Knize et al. ⁵⁶	SE	C	7
Pork (cubes)	Cubos de cerdo estofado	STW	na	150-225	5	nd-0.10	nd-0.70	nd-0.20		0.10	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Pork (cubes, pan residues)	Cubos de cerdo (restos en la sartén)	FR	na	150-225	5	0.04-1.80	0.03-2.60	<0.01-0.60		0.70	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Pork (ground gravy)	Cerdo (picado en salsa)	FR	na			10.00	1.5	0.90		0.04		n.a	NA	4	2003	Knize et al. ¹⁷	US	C	9
Pork (rib)	Costilla de cerdo	BK	me			0.50	nd	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Pork (rib)	Costilla de cerdo	BK	me			0.50	nd	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Pork (rib)	Costilla de cerdo	SM	me			7.40	nd	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Pork (rib)	Costilla de cerdo	SM	me			7.40	nd	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Pork (rib)	Costilla de cerdo	SM	wd			0.70	nd	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Pork (rib)	Costilla de cerdo	SM	wd			0.70	nd	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Pork (rib)	Costilla de cerdo	BK	wd			2.30	nd	nd				mn	HPLC-FL	2	1998	Knize et al. ¹⁶	US	D	16
Pork (rinds)	Piel de cerdo	NA	na			nd	0.42	0.10		0.60	1.30	n.a	NA	4	1997	Knize et al. ⁵⁶	SE	C	7

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción									Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Pork (steak)	Filete de cerdo	FR	me	200		0.37	0.25	0.10				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Pork (steak)	Filete de cerdo	FR	wd	200		7.82	2.22	0.95				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Reindeer	Reno	FR	na	150-225	5	0.40-5.80	nd-1.00	nd		0.30	2.30	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Reindeer (pan residues)	Reno (restos en la sartén)	FR	na	150-225	5	nd-3.50	0.10-0.80	0.03-0.60		1.60	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Sausage	Frankfurt	FR	me	200		0.00	0.36	0.00				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Sausage	Frankfurt	FR	na	160	6	0.10	0.7	0.20		nd		n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Sausage	Frankfurt	FR	na			0.1	0.70	0.20		0.10	0.20	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	US	C	9
Sausage	Frankfurt	FR	wd	200		0.61	0.07	0.00				mn	HPLC	1	1999	Norrish et al. ³²	NZ	D	32
Sausage	Frankfurt	NA	na			nd	0.10	nd				mn	HPLC-FL	1	1995	Knize et al. ⁸	US	D	8
Sausage (cocktail)	Frankfurt (cocktail)	FR	na			0.06-0.10	nd-0.10	nd				n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhilP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Sausage (cocktail, pan residues)	Frankfurt (cocktail, restos en la sartén)	FR	na			< 0.01-0.02	nd-0.02	nd				n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Sausage (Falun)	Salchicha (Falun)	BK	na	150-225	5	nd	nd	nd				n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Sausage (Falun)	Salchicha (Falun)	FR	na	150-225	2	nd	0.60					n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Sausage (Falun)	Salchicha (Falun)	FR	na	200	30	nd-0.10	nd	nd-0.07				n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Sausage (Falun, pan residues)	Salchicha (Falun, restos en la sartén)	BK	na	150-225	5	nd	< 0.01	< 0.01				n.a	NA	4	1995	Skog et al. ²¹	SE	C	7
Sausage (Falun, pan residues)	Salchicha (Falun, restos en la sartén)	FR	na	200	30	0.06-0.40	0.03-0.20	0.04-0.10				n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Sausage (links)	Salchicha	FR	me	175	9	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Sausage (links)	Salchicha	FR	vwd	177	21	1.30	0.10					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Sausage (links)	Salchicha	FR	wd	177	15	0.40	nd				nd	mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Sausage (Merguez)	Salchicha (Merguez)	NE	na			nd	1.80	1.90				n.a	NA	4	1997	Fay et al. ³⁸	CH	C	7
Sausage (Mesquite)	Salchicha (Mesquite)	NA	na			0.40	26.0					n.a	NA	4	1996	Holder et al. ³⁹	SE	C	7
Sausage (pan residues)	Frankfurt (restos en la sartén)	FR	na	160	2,5	nd	2.50	< 0.10		0.10		n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Sausage (patties)	Hambuerguesa de salchicha	FR	me	175	8	nd	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Sausage (patties)	Hambuerguesa de salchicha	FR	vwd	179	21	5.40	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Sausage (patties)	Hambuerguesa de salchicha	FR	wd	176	14	1.60	nd					mn	HPLC-UV	1	1998	Sinha et al. ³¹	US	D	31
Shish-kebab	Carne entrichada (oveja o carnero)	GR	na	20		nd	0.10	nd		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	D	29
Turkey (breast)	Pechuga de pavo	FR	na		20	3.80	1.40	0.40		1.10	0.90	mn	HPLC-FL	3	1997	Murkovic et al. ¹⁰	AV	D	10

FISH / PESCADO

Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción									Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Fish	Pescado	NE	na			0.00-1000	0.00-200		0.00-500			p	NA	4	2002	Skog et al. ²	SE	C	2
Fish	Pescado	GR	na			1.625	0.0025	nd				mn	GC	2	1993	Tikkanen et al. ¹¹	FI	D	11
Fish	Pescado	BA	na			< 0.100	nd-0.03	nd				n.a	NA	4	1993	Tikkanen et al. ¹¹	FI	C	7
Fish	Pescado	GR	na			7.40	< 0.10			53.2		n.a	NA	4	1996	Wu et al. ²³	CN	C	7
Fish (fast food)	Pescado (comida rápida)	NA	na			nd	nd	nd				mn	HPLC-FL	1	1995	Knize et al. ⁸	US	D	8
Herring (baltic)	Arenque báltico	NE	na			nd	0.60	0.30		0.20	nd	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	C	7
Herring (baltic)	Arenque báltico	FR	na	150-225	2	0.06-0.30	nd-0.20	nd		nd	nd	n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Herring (baltic, pan residues)	Arenque báltico (restos en la sartén)	FR	na	150-225	2	< 0.01	nd-0.10	nd		nd		n.a	NA	4	1997	Skog et al. ⁴⁰	SE	C	7
Mackerel (flesh)	Caballa (carne)	NA	na			0.23	nd	nd		nd	0.07	mn	GC	1	2002	Kataoka et al. ⁵⁸	JP	D	58
Mackerel (skin)	Caballa (piel)	NA	na			1.60	0.59	1.20		nd	0.38	mn	GC	1	2002	Kataoka et al. ⁵⁸	JP	C	58
Pike-perch	Lucio	NA	na	20		nd	0.10	nd		nd		mn	HPLC-MS	2	1998	Richling et al. ²⁹	DE	C	29
Salmon	Salmón	BK	na	200	30	1.70-23.0	nd-4.60			0.05-0.20	nd	n.a	NA	4	1992	Gross and Gruter ²²	CH	C	7
Salmon	Salmón	FR	na	200	7.5	nd-18.0	1.40-50.0			nd	nd	n.a	NA	4	1992	Gross and Gruter ²²	CH	D	7
Salmon	Salmón	FR	na	150	9	3.00	0.60	0.20		nd	nd	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	D	7
Salmon	Salmón	SM	na			nd	1.30	nd		nd	nd	n.a	NA	4	1994	Johansson and Jagerstad ²⁰	SE	D	7
Salmon	Salmón	BK	na		30		nd	nd		nd		mn	CZE	2	1998	Mardones et al. ²⁷	ES	D	27
Salmon (flesh)	Salmón (carne)	NA	na			0.294	0.099	nd		nd	0.18	mn	GC	1	2002	Kataoka et al. ⁵⁸	JP	D	58

ALCOHOLIC BEVERAGES / BEBIDAS ALCOHÓLICAS

Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhIP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción										Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente
Wine (black)	Vino negro	NP	np			26.0						mn	HPLC	1	1993	Manabe et al. ³⁵	JP	D	35
Wine (white)	Vino blanco	NP	np			38.5						mn	HPLC	1	1993	Manabe et al. ³⁵	JP	D	35
Wine (n.e)	Vino (sin especificar)	NP	np			41.5						mn	HPLC	2	1997	Richling et al. ³⁶	DE	D	36

NON ALCOHOLIC BEVERAGES / BEBIDAS NO ALCOHÓLICAS

Food	Alimento	Cooking method	Degree of doneness	Temp °C	Time (min)	PhiP (ng/g)	MeIQx (ng/g)	DiMeIQx (ng/g)	AC (ng/g)	IQ (ng/g)	MeIQ (ng/g)	Value	Analytic method	Sample method	Year	Author	Country Code	Source	Ref.
		Método cocción	Grado de cocción									Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Coffee (beans)	Café en grano	NA	na								0.083	mn	HPLC	3	1989	Kikugawa et al. ³³	JP	D	33
Coffee (beans)	Café en grano	NA	na								nd	mn	HPLC	4	1991	Gross et al. ³⁴	CH	D	34

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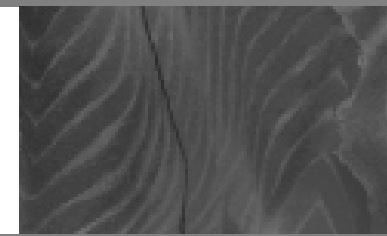
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POLYCYCLIC AROMATIC HIDROCARBONS
HIDROCARBUROS AROMÁTICOS POLICÍCLICOS



POTATOES AND TUBERS / PATATAS Y
TUBÉRCULOS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Potatoes (chips)	Patatas chips	FR	NA	0.04			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Potatoes (french fried)	Patatas fritas	FR	NA	0.22			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Potatoes (sweet)	Boniato	RA	NA	0.17			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Potatoes (white)	Patatas	RA	NA	0.17			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Potatoes (white)	Patatas	RA	NA	0.001		0.52	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7

VEGETABLES / VEGETALES

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Beans (greens)	Judías verdes	NA	CA	0.14			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Beets (greens)	Hojas de remolacha	RA	NA	0.096		14.0	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Broccoli	Brócoli	RA	FR/FZ	0.17			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Carrot	Zanahoria	RA	FR/FZ	0.15			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cauliflower	Coliflor	RA	FR/FZ	0.12			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cauliflower	Coliflor	RA	NA	0.006		2.79	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Cole slaw	Ensalada de col	RA	NA	0.02			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Collars greens	Grelos	RA	FR/FZ	0.48			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Corn	Maíz	NA	CA	0.17			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Corn	Maíz	NA	NA	0.022		0.85	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7

VEGETABLES / VEGETALES

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Greens (mixed)	Vegetales de hoja (mixtos)	NA	FZ	0.14			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Kale	Col rizada	RA	FR/FZ	0.47			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Kale	Col rizada	NA	FZ	0.15			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Lettuce	Lechuga	RA	NA	0.007		2.61	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Peas	Guisantes	NA	CA	0.09			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Spinach	Espinaca	NA	FZ/FR	0.10			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Spinach	Espinaca	NA	FZ	0.12			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Squash	Calabacín	RA	NA	0.45		8.90	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Tomato	Tomate	NA	FR/CA	0.19			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Tomato	Tomate	RA	NA	0.003		0.64	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7

FRUITS / FRUTAS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación											
Almonds	Almendras	TOA	NA	nd			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Apple	Manzana	RA	FR	0.10			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Apple	Manzana	RA	NA	0.53		8.27	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Apple (peeled)	Manzana pelada	RA	NA	0.06		2.35	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Banana	Plátano	RA	FR	0.16			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Coconut	Coco	BO	DR	3.37	0.14		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Fruits	Frutas	BO	DR	0.08	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Fruits (citrus)	Frutas cítricas	RA	NA	0.03		1.67	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Grapefruit	Pomelo	RA	FR	0.02			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Nuts (mixed)	Frutos secos	TOA	NA	nd			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Orange	Naranja	RA	FR	0.16			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Peach	Melocotón	RA	FR	0.17			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Peanuts	Cacahuetes	TOA	NA	0.01			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Strawberry	Fresa	RA	FR	0.01			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Walnuts	Nueces	TOA	NA	0.03			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2

MILK AND DAIRY PRODUCTS / LECHE Y DERIVADOS
LÁCTEOS

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Cheese	Queso	NA	NA	0.04	0.01		na	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Cheese	Queso	NA	SM	0.91			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Cheese	Queso	NA	NA	0.014		0.99	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Cheese (american)	Queso americano	NA	NA	nd			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cheese (Cheddar)	Queso Cheddar	NA	SM	0.50	0.10		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Cheese (cottage)	Queso cottage	NA	NA	0.07			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cheese (Edam)	Queso Edam	NA	SM	0.30	0.01		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Cheese (low fat spread)	Queso de untar bajo en grasa	NA	NA	0.46	0.07		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Cheese with jam	Queso con jamón	NA	SM	0.065			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Cream	Nata	NA	NA	0.02	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Cream	Nata	NA	NA	0.16			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cream (substitute)	Sucedáneo nata	NA	NA	0.27	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Ice cream	Helado	NA	FZ	0.05	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Milk	Leche	NA	NA	0.01	nd		mn	HPLC	3	1983	Dennis et al. ⁸	UK	D	8
Milk (cow)	Leche de vaca	NA	NA	1.50	nd		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18
Milk (evaporated)	Leche evaporada	NA	NA	0.05	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Milk (filled powder)	Leche concentrada	TOA	NA	0.20	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6

MILK AND DAIRY PRODUCTS / LECHE Y DERIVADOS
LÁCTEOS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Milk (infant formulae)	Fórmula infantil en polvo	NA	DR	0.49	0.03		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Milk (infant formulae)	Fórmula infantil en polvo	NA	DR	1.20	3.00		mn	HPLC-FL	2	1984	Lawrence and Weber ²²	CA	D	22
Milk (sheep)	Leche de oveja	NA	NA	1.60	nd		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18
Milk (skimmed)	Leche en polvo descremada	NA	DR	0.11	0.01		mn	HPLC	1	1991	Dennis et al. ⁶	UK	D	6
Milk (skimmed)	Leche en polvo descremada	NA	DR	0.03	0.37		mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Milk (whole)	Leche entera	NA	NA	0.02			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Milk (whole)	Leche entera	NA	NA	0.34		1.65	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Yogurt	Yogurt	NA	NA	0.05	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Yogurt	Yogurt	NA	NA	0.34		1.65	mn	HPLC	2	1995	Lodovici et al. ⁷	IT	D	7
Yogurt	Yogurt	NA	FZ	0.18			mn	HPLC + TLC	2	2001	Kazerouni et al. ²	US	D	2

CEREALS AND CEREAL PRODUCTS / CEREALES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Barley	Cebada	NA	SM	0.60		300	n.a	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Malt (barley)	Cebada de malta	NA	NA	0.10	0.40		mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Bran	Salvado	NA	NP	0.40	0.06		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Bran	Salvado	NA	NP	5.40		380	mn	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Bran (high)	Salvado 100%	NA	NP	0.11	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Bran (high)	Salvado 100%	NA	NP	0.03			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Bran (natural)	Salvado natural	NA	NP	0.02			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Bread (oat rolled)	Pan de avena	NA	NA	0.30		64.0	mn	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Bread (white)	Pan blanco	NA	NA	0.10			mn	HPLC	1	1990	De Vos et al. ⁴	DE	D	4
Bread (white)	Pan blanco	NA	NA	0.10	0.01		mn	HPLC	1	1991	Dennis et al. ⁶	UK	D	6
Bread (white)	Pan blanco	NA	NA	0.10			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Bread (white)	Pan blanco	NA	NA	0.017		3.12	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Cereal (breakfast corn bran)	Cereales de desayuno (salvado de maíz)	NA	DR	0.20	nd	6.70	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Cereal (breakfast flaked milled corn)	Cereales de desayuno (copos de maíz)	NA	DR	nd	nd	5.70	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Cereal (breakfast puffed wheat)	Cereales de desayuno (trigo inflado)	NA	DR		3.00	20.3	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Cereal (breakfast wheat bran)	Cereales de desayuno (salvado de trigo)	NA	DR	0.80	3.60	59.5	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Cereal (breakfast whole grain oats)	Cereales de desayuno (granos de avena)	NA	DR	nd	nd	6.90	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22

CEREALS AND CEREAL PRODUCTS / CEREALES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Cereal (breakfast whole wheat)	Cereales de desayuno de trigo entero	NA	DR	0.10	nd	18.6	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Cereal (breakfast)	Cereales de desayuno	NA	DR	0.04	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Cereal (fortified)	Cereales fortificados	NA	NP	0.02			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cereal (with low fat granola and risings)	Cereales con granola y uvas pasas	NA	NP	0.30			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cereals	Cereales	NA	NP	0.32	0.06		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Cereals	Cereales	NA	NP	0.32	0.06		mn	HPLC	3	1983	Dennis et al. ⁸	UK	D	8
Cereals (bran enriched)	Cereales enriquecidos con salvado	NA	NP	0.25	0.02		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Corn chips	Chips de maíz	NA	NP	0.06			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Corn flakes	Copos de maíz	NA	NP	0.15			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cream of wheat	Crema de trigo	NA	NA	0.31			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Flour (bolted rye)	Harina de centeno	NA	NP			28.0	mn	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Flour (bolted wheat)	Harina de trigo	NA	NP	0.40		32.0	mn	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Flour (granary)	Harina integral	NA	NP	0.43	0.05		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Flour (milled wheat)	Harina de trigo molida	NA	NP	0.10		8.60	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Flour (wheat)	Harina trigo	NA	NP	0.06	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Oat	Avena	NA	SM	160		4500	mn	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Oat (milled)	Avena molida	NA	NA	0.40		38.0	mn	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Oat (whole cereal)	Avena integral	NA	NA	0.08			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2

CEREALS AND CEREAL PRODUCTS / CEREALES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación											
Oatmeal	Harina de avena	NA	NA	0.18			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Pasta	Pasta	NA	NA	0.017		5.93	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Pizza	Pizza	BK	NA	0.025		13.0	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Popped popcorn	palomitas de maíz	NA	NA	0.56			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Rice	Arroz	NE	NA	0.80			mx	HPLC	1	1990	De Vos et al. ⁴	DE	D	4
Rice	Arroz	NE	NA	0.12			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Rice	Arroz	NE	NA	0.022		0.85	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Rice krispies	Arroz tostado hinchado	NE	NP	0.11			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Spaghetti	Espaguetis	NE	NA	0.18			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Wheat (clean milled)	Grano de trigo molido tratado	NA	NA	0.10		9.70	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
wheat (milled bran)	Salvado de trigo molido	NA	NP	0.50		55.2	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Wheat (milled)	Trigo molido	NA	NP	0.20		25.0	mn	GC-MS	1	1988	Tuominen et al. ¹⁷	US	D	17
Wheat (rough milled)	Grano de trigo molido sin tratar	NA	NP	0.10		8.70	mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Wheat (shredded)	granos de trigo	NA	NP	0.25			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
"Chorizo"	Chorizo	NA	SM	0.23			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Bacon	Bacon	NA	SM	0.01			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Bacon	Bacon	NA	SM	0.10	nd		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Bacon (pork)	Bacon de cerdo	NA	SM	0.35	nd	6.80	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Bacon (turkey)	Bacon de pavo	NA	SM	0.20	0.15	6.25	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Beef	Carne de vaca/buey	NE	SM	0.40	nd	9.70	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Beef	Carne de vaca/buey	NE	NA	0.61		5.66	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Beef	Carne de vaca/buey	BA	NA	1.45		42.1	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Beef (liver)	Hígado de vaca/buey	NE	NA	0.032		0.89	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Beef (spreads meat)	Carne de vaca/buey para untar	SM	CA	0.10			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Chicken	Pollo	GR	NA	4.60	nd	60.2	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Chicken	Pollo	BA	SM	0.70	1.00	17.3	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Chicken	Pollo	NA	NA	0.015		0.60	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Chicken (breast)	Pechuga de pollo	STW	NA	nd	nd	1.60	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Chicken (heart)	Corazón de pollo	STW	NA	nd	nd	19.0	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Chicken (liver)	Hígado de pollo	STW	NA	nd	nd	141.5	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Chicken (liver)	Hígado de pollo	NA	NA	3.25	nd		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18
Chicken (slicedbreast)	Pechuga de pollo	NE	SM	nd	nd	4.50	mn	HPLC-FL	2	1993	Gomaa et al. ⁵	US	D	5
Chicken (sliced)	Pollo en lonchas	NA	SM	0.10	0.10		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Chicken (wing)	Ala de pollo	STW	NA	nd	nd	41.2	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Chicken (wing)	Ala de pollo	BA	SM	0.80	2.00	22.4	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Duck	Pato	GR	NA	nd	nd	72.0	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Frankfurt	Frankfurt	NA	SM	nd	nd	14.9	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Frankfurt	Frankfurt	NA	SM	nd	nd		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Goat (kidney)	Riñón de cabra	NA	NA	nd	1.00		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18
Goat (liver)	Hígado de cabra	NA	NA	1.33	2.00		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18
Ham	Jamón	NA	SM	0.009			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Ham (cooked)	Jamón cocido	NE	SM	nd	nd	2.60	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Ham (sliced)	Jamón en lonchas	NA	SM	0.10	0.50	6.50	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Ham (sliced)	Jamón en lonchas	NA	SM	nd	0.10		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Ham (whole)	Jamón entero	NA	SM	1.10	0.50	9.50	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Ham (whole)	Jamón entero	NA	SM	0.20	nd		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Hamburger	Hamburguesa	FR	NA	nd	nd		mn	GC-MS	1	1984	Lawrence and Weber ²³	CA	D	23
Hamburger	Hamburguesa	FR	NA	0.05	nd		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Hamburger	Hamburguesa	BR	NA	3.45	nd		mn	GC-MS	1	1984	Lawrence and Weber ²³	CA	D	23
Hamburger	Hamburguesa	BR	NA	2.20	1.70		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Meat	Carne	NA	NA	0.05	0.01		mn	HPLC	3	1983	Dennis et al. ⁸	UK	D	8
Meat	Carne	NA	CU	0.034		3.41	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Pork	Cerdo	NA	SM	0.10	nd	7.50	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Pork	Cerdo	STW	NA	nd	nd	3.10	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Pork	Cerdo	NE	NA	0.035		7.26	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Pork	Cerdo	BA	NA	0.12		13.6	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Pork (chops)	Chuletas de cerdo	ROA	SM	2.50	0.80	29.8	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5

MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación											
Pork (spreads meat)	Carne de cerdo para untar	SM	CA	nd			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Pork (stomach)	Tripas de cerdo	STW	NA	nd	nd	23.4	mn	HPLC-FL	1	1996	Chen et al. ¹⁶	CN	D	16
Rabbit	Conejo	NE	NA	0.015		3.43	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Sausage	Salchicha	NE	SM	0.022			mn	HPLC-FL	2	1996	García Falcón et al. ¹⁰	ES	D	10
Sausage	Salchicha	NA	SM	0.075	nd		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Sausage (beef)	Salchicha de ternera	NA	SM	0.65	0.10	10.0	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Sausage (Bologna)	Mortadela de Bolonia	NA	SM	0.017			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Sausage (chicken)	Salchicha de pollo	NA	SM	0.10	0.10	8.10	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Sausage (pork)	Salchicha de cerdo	NA	SM	2.05	0.10	19.3	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Sausage (turkey)	Salchicha de pavo	NA	SM	0.03	0.066	7.20	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Sheep (kidney)	Riñón de oveja	NA	NA	1.00	nd		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18
Sheep (liver)	Hígado de oveja	NA	NA	1.78	nd		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18
Turkey (breast)	Pechuga de pavo	NA	SM	0.05	0.15	4.35	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Turkey (sliced)	Pavo en lonchas	NA	SM	0.10		0.40	mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26

FISH / PESCADO

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Anchovy	Anchoa	RA	SM	0.016			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Angel fish	Palometa	RA	SM	nd			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Cod	Bacalao	SM	FR	nd	nd		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Codfish	Bacalao	RA	SM	0.018			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Codfish	Bacalao	NA	NA	0.014		0.58	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Codfish	Bacalao	NA	DR	0.026		0.53	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Codfish (liver)	Hígado de bacalao	SM	CA	nd			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Eel (Ontario lake)	Anguila (lago Ontario)	NA	FR	nd	2.90	7.90	mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Fish	Pescado	NA	NA	0.13	0.03		mn	HPLC	3	1983	Dennis et al. ⁸	UK	D	8
Haddock	Rodaballo	SM	FR	nd	1.10		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23

FISH / PESCADO

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación											
Herring	Arenque	NA	SM	0.050			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Herring	Arenque	NA	SM	0.90	1.70	55.2	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Herring	Arenque	BR	NA	400/dw*		1300	mn	HPLC-UV	1	1996	Järvenpää et al. ¹⁹	FI	D	19
Herring	Arenque	NA	SM	40.0		180	mn	HPLC-UV	1	1996	Järvenpää et al. ¹⁹	FI	D	19
Herring	Arenque	SM	FR	nd	2.10		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Kippers	Arenque	SM	CA	nd			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Lobster	Langosta	SM	CA	0.20	nd		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Lobster (spread meat)	Carne de langosta para untar	SM	CA	9.77	24.0		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Mackerel	Caballa	NA	SM	0.46			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Mussel	Mejillón	SM	CA	2.45	nd	9.40	mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Mussel (Denmark)	Mejillón (Dinamarca)	NA	CA	0.70	0.50		mn	GC	4	1990	Speer et al. ³	DE	D	3

*dw: dried weight

FISH / PESCADO

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Mussel (Germany)	Mejillón (Alemania)	NA	CA	0.80	0.30		mn	GC	4	1990	Speer et al. ³	DE	D	3
Mussel (Korea)	Mejillón (Korea)	NA	CA	0.30	< 0.10		mn	GC	4	1990	Speer et al. ³	DE	D	3
Oysters	Ostras	RA	SM	3.00	0.50	69.9	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Oysters	Ostras	NA	SM	1.90	0.70		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Oysters	Ostras	SM	CA	3.40	1.80		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oysters	Ostras	NA	CA	0.80	7.90		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oysters	Ostras	SM	CA	0.40	0.10		mn	GC	4	1990	Speer et al. ³	DE	D	3
Oysters (France)	Ostras (Francia)	NA	FR	1.00	0.20		mn	GC	4	1990	Speer et al. ³	DE	D	3
Oysters (Germany)	Ostras (Alemania)	NA	FR	0.60	0.20		mn	GC	4	1990	Speer et al. ³	DE	D	3
Oysters (Korea)	Ostras (Korea)	NA	FR	0.20	0.10		mn	GC	4	1990	Speer et al. ³	DE	D	3
Oysters (Korea)	Ostras (Korea)	SM	CA	11.2			mn	GC	4	1990	Speer et al. ³	DE	D	3

FISH / PESCADO

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación											
Sahite	Carbonero	SM	CA	nd			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Salmon	Salmón	RA	SM	0.013			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Salmon	Salmón	RA	SM	3.90	1.90	86.6	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Salmon	Salmón	NA	SM	nd	nd		mn	HPLC-FL	1	1984	Joe et al. ²⁶	US	D	26
Salmon (in vegetable oil)	Salmón en aceite vegetal	SM	CA	0.49			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Sardine	Sardina	RA	SM	2.46			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Sardine	Sardina	SM	CA	0.45			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Shrimp	Gambas	RA	SM	nd	0.10	9.30	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Smelt (lake Ontario)	Eperlano (lago Ontario)	NA	FR	0.05	1.90	4.40	mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Swordfish	Pez espada	RA	SM	0.018			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1

FISH / PESCADO

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Trout	Trucha	RA	SM	0.03			mn	HPLC-FL	2	1999	García Falcón et al. ¹	ES	D	1
Trout	Trucha	RA	SM	nd	0.10	11.8	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5
Trout	Trucha	NA	NA	0.027		1.75	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Tuna	Atún	RA	SM	0.015			mn	HPLC-FL	2	1999	García Falcón et al. ¹	US	D	1
White perch (lake Ontario)	Perca blanca (lago Ontario)	NA	FR	nd	nd	4.50	mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Whitefish	Pescado blanco	NA	SM	nd	nd		mn	HPLC-FL	1	1993	Gomaa et al. ⁵	US	D	5
Whitefish	Pescado blanco	RA	SM	0.80	1.10	28.2	mn	HPLC	2	1993	Gomaa et al. ⁵	US	D	5

EGGS / HUEVOS

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Egg (chicken)	Huevo de gallina	NA	FR	7.49	4.75		mn	GC	1	1997	Husain et al. ¹⁸	KW	D	18

FATS (ADDED) / GRASAS (AÑADIDAS)

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Butter	Mantequilla	NA	NA	0.06	0.01		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Butter	Mantequilla	NA	NA	nd			mn	HPLC-TLC	1	2001	Kazerouni et al. ²	US	D	2
Butter	Mantequilla	NA	NA	0.016		3.67	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Cream (non-dairy, liquid)	Nata líquida	NA	NA	0.12			mn	HPLC-TLC	1	2001	Kazerouni et al. ²	US	D	2
Cream (non-dairy, powder)	Concentrado de nata	NA	NA	nd			mn	HPLC-FL	1	2001	Kazerouni et al. ²	US	D	2
Fats (hydrogenated vegetable)	Aceite vegetal hidrogenado	NA	NP	0.77	0.14		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Margarine	Margarina	NA	NA	1.68	0.25		mn	HPLC	2	1991	Dennis et al. ⁶	UK	D	6
Margarine	Margarina	NA	NA	0.12			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Mayonnaise	Mayonesa	NA	NA	0.03			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Oil	Aceite	NA	NP	1.57	0.06		mn	HPLC	3	1983	Dennis et al. ⁸	UK	D	8

FATS (ADDED) / GRASAS (AÑADIDAS)

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Oil (Argentine)	Aceite de oliva (Argentina)	NA	NP	24.3			mn	HPLC-FL	1	1996	Pupin and Figueiredo Toledo. ²⁵	BR	D	25
Oil (associated with canned smoked sardines)	Aceite contenido en sardinas ahumadas en conserva	NA	NP	3.10			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oil (associated with smoked cod liver)	Aceite de hígado de bacalao	NA	NP	nd			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oil (associated with smoked kippers)	Aceite contenido en arenques ahumados	NA	NP	nd			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oil (associated with smoked mussels)	Aceite contenido en mejillones ahumados	NA	NP	8.80	nd		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oil (associated with smoked oyster)	Aceite contenido en ostras ahumadas	NA	NP	45.0	nd		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oil (associated with smoked oyster)	Aceite contenido en ostras ahumadas	NA	NP	75.8	8.70		mn	GC	4	1990	Speer et al. ³	DE	D	3
Oil (associated with smoked saithes)	Aceite contenido en carboneros ahumados	NA	NP	nd			mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23
Oil (canola and/or soybean)	Aceite de canola y/o soja	NA	NP	nd	nd		mn	HPLC-FL	1	1984	Lawrence and Weber ²³	CA	D	23

FATS (ADDED) / GRASAS (AÑADIDAS)

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Oil (cocoa)	Aceite de cacao	NA	NP	2.58		57.8	mn	GC	2	1982	Kolarovic and Traitler. ²¹	NL	D	21
Oil (corn)	Aceite de maíz	NA	NP	0.30	1.10		mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Oil (corn)	Aceite de maíz	NA	NP	10.8			mn	HPLC-FL	2	1996	Pupin and Figueiredo. ¹⁵	BR	D	15
Oil (corn)	Aceite de maíz	NA	NP	nd			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Oil (Europe)	Aceite de oliva (Europa)	NA	NP	0.27			mn	HPLC-FL	1	1996	Pupin and Figueiredo Toledo. ²⁵	BR	D	25
Oil (garlic)	Aceite de ajo	NA	NP	nd			mn	HPLC-FL	2	1996	Pupin and Figueiredo ¹⁵	BR	D	15
Oil (grapeseed)	Aceite de pepita de uva	NA	NP	0.60		22.9	mn	GC	2	1982	Kolarovic and Traitler. ²¹	NL	D	21
Oil (lindseed)	Aceite de semillas de lino	NA	NP	0.90	< 0.10		mn	GC	4	1990	Speer et al. ³	US	D	3
Oil (maize germ)	Aceite de germen de maíz	NA	NP	1.30	0.10		mn	GC	2	1990	Speer et al. ³	US	D	3
Oil (olive blended with corn or soybean oils)	Aceite de oliva mezclado con aceite de maíz o de soja	NA	NP	4.77			mn	HPLC-FL	1	1996	Pupin and Figueiredo Toledo. ²⁵	BR	D	25
Oil (olive Europe)	Aceite de oliva (Europa)	NA	NP	2.46			mn	HPLC-FL	1	1996	Pupin and Figueiredo Toledo. ²⁵	BR	D	25

FATS (ADDED) / GRASAS (AÑADIDAS)

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Oil (olive)	Aceite oliva	NA	NP	0.10		1.00	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Oil (olive)	Aceite de oliva	NA	NP	nd	nd		mn	GC	1	1991	Menichini et al. ²⁴	IT	D	24
Oil (olive)	Aceite de oliva	NA	NP	0.70	nd		mn	GC	4	1990	Speer et al. ³	US	D	3
Oil (palm)	Aceite de palma	NA	NP	3.10			mn	HPLC-FL	2	1996	Pupin and Figueiredo ¹⁵	BR	D	15
Oil (peanut)	Aceite de cacahuete	NA	NP	58.2		439	mn	GC	2	1982	Kolarovic and Traitler. ²¹	NL	D	21
Oil (rapeseed)	Aceite de colza	NA	NP	2.14		34.6	mn	GC	2	1982	Kolarovic and Traitler. ²¹	NL	D	21
Oil (rapeseed)	Aceite de colza	NA	NP	nd			mn	HPLC-FL	2	1996	Pupin and Figueiredo ¹⁵	BR	D	15
Oil (rice)	Aceite de arroz	NA	NP	1.85			mn	HPLC-FL	2	1996	Pupin and Figueiredo ¹⁵	BR	D	15
Oil (safflower)	Aceite de cártamo	NA	NP	0.30	nd		mn	GC	4	1990	Speer et al. ³	US	D	3
Oil (sesame)	Aceite de sésamo	NA	NP	nd	nd		mn	GC	4	1990	Speer et al. ³	US	D	3
Oil (soybean)	Aceite de soja	NA	NP	28.5		220	mn	GC	2	1982	Kolarovic and Traitler. ²¹	NL	D	21

FATS (ADDED) / GRASAS (AÑADIDAS)

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación											
Oil (soybean)	Aceite de soja	NA	NP	0.20	0.7		mn	HPLC-FL	1	1984	Lawrence and Weber ²²	CA	D	22
Oil (soybean)	Aceite de soja	NA	NP	2.20			mn	HPLC-FL	2	1996	Pupin and Figueiredo ¹⁵	BR	D	15
Oil (sunflower)	Aceite de girasol	NA	NP	1.51		41.3	mn	GC	2	1982	Kolarovic and Traitler. ²¹	NL	D	21
Oil (sunflower)	Aceite de girasol	NA	NP	0.70	< 0.10		mn	GC	4	1990	Speer et al. ³	US	D	3
Oil (sunflower)	Aceite de girasol	NA	NP	0.55			mn	HPLC-FL	2	1996	Pupin and Figueiredo ¹⁵	BR	D	15
Oil (vegetable associated with anchovies)	Aceite vegetal contenido en anchoas	NA	NP	0.40			mn	HPLC-FL	3	2000	Vazquez Troche et al. ⁹	ES	D	9
Oil (vegetable associated with preserved fish)	Aceite vegetal contenido en conservas de pescado	NA	NP	0.68			mn	HPLC-FL	1	2000	Vazquez Troche et al. ⁹	ES	D	9
Oil (vegetable associated with sardines)	Aceite vegetal contenido en sardinas	NA	NP	0.40			mn	HPLC-FL	1	2000	Vazquez Troche et al. ⁹	ES	D	9

FATS (ADDED) / GRASAS (AÑADIDAS)

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Oil (vegetable associated with smoked mackerel)	Aceite vegetal contenido en caballa ahumada	NA	NP	19.0			mn	HPLC-FL	1	2000	Vazquez Troche et al. ⁹	ES	D	9
Oil (vegetable associated with smoked sardines)	Aceite vegetal contenido en sardinas ahumadas	NA	NP	2.00			mn	HPLC-FL	1	2000	Vazquez Troche et al. ⁹	ES	D	9
Oil (vegetable associated with tuna)	Aceite vegetal contenido en atún	NA	NP	0.40			mn	HPLC-FL	1	2000	Vazquez Troche et al. ⁹	ES	D	9
Oil (vegetable)	Aceite vegetal	NA	NP	1.29	0.21		mn	HPLC	1	1991	Dennis et al. ⁶	UK	D	6
Oil (vegetable)	Aceite vegetal	NA	NP	0.02			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Oil (virgin olive)	Aceite de oliva virgen	NA	NP	nd	nd		mn	GC	1	1991	Menichini et al. ²⁴	IT	D	24
Oil (virgin olive)	Aceite de oliva virgen	NA	NP	0.59			mn	HPLC-FL	3	2000	Vazquez Troche et al. ⁹	ES	D	9
Oil (wheat germ)	Aceite de germen de trigo	NA	NP	1.30	nd		mn	GC	4	1990	Speer et al. ³	US	D	3
Oils (edible)	Aceites comestibles	NA	NP	0.25	0.06		mn	HPLC-FL	3	1996	Van Stijn et al. ²⁰	NL	D	20

SWEETS AND DESSERTS / DULCES Y POSTRES

Food	Alimento	Cooking method	Preservation method	B(a) P μ/kg	DiB (a) A μ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación											
Bars (granola)	Barritas de granola	NA	NA	0.09			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Biscuits	Galletas	NA	NA	0.013			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Biscuits	Galletas	NA	NA	0.10			mn	HPLC	1	1990	De Vos et al. ⁴	DE	D	4
Biscuits	Galletas	NA	NA	0.44	0.05		mn	HPLC	2	1991	Dennis et al. ⁸	UK	D	6
Cake	Bizcocho	NA	NA	0.44	0.05		mn	HPLC	2	1991	Dennis et al. ⁸	UK	D	6
Cake (apple and cherry)	Tarta de manzana y cereza	NA	NA	0.11			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cake (assorted)	Surtido de pasteles	NA	NA	0.11			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Cake (with icing)	Pastel glaseado	NA	NA	0.02			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Candy (chocolate)	Caramelos de chocolate	NA	NA	0.18			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Candy (non chocolate)	Caramelos	NA	NA	0.23			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Chocolate	Chocolate	NA	NA	0.33	0.72	10.5	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Cookies (assorted)	Galletas surtidas	NA	NA	0.01			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Doughnuts	Donuts	NA	NA	0.03			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Jelly (grape)	Jalea de uva	NA	NA	0.01			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Muffins (blueberry)	Magdalena con arándanos	NA	NA	0.03			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Pie (pumpkin)	Tarta de calabaza	NA	NA	0.47			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Pudding	Pudding	NA	NA	0.44	0.05		mn	HPLC	2	1991	Dennis et al. ⁸	UK	D	6
Sugar	Azúcar	NA	NA	0.15			mn	HPLC + TLC	1	2001	Kazerouni et al. ²	US	D	2
Sugar	Azúcar	NA	NA	0.07	0.01		mn	HPLC	3	1983	Dennis et al. ⁸	UK	D	8

ALCOHOLIC BEVERAGES / BEBIDAS ALCOHÓLICAS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Beer	Cerveza	NA	NP	0.029		0.31	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Beer	Cerveza	NA	NP	0.01	1.90		mn	HPLC	1	1991	Dennis et al. ⁶	US	D	6
Whisky	Whisky	NA	NP	0.01	0.01		mn	HPLC	1	1991	Dennis et al. ⁶	US	D	6
Wine	Vino	NA	NP	0.009		0.20	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7

NON ALCOHOLIC BEVERAGES / BEBIDAS NO ALCOHÓLICAS

Food	Alimento	Cooking method	Preservation method	B(a) P µ/kg	DiB (a) A µ/kg	Total PAH	Value	Analytic method	Sample method	Year	Author	Code Country	Source	Ref.
		Método cocción	Método Conservación				Valor	Método analítico	Método muestreo	Año	Autor	Código País	Fuente	
Coffee	Café	NA	NP	0.011		0.20	mn	HPLC	1	1995	Lodovici et al. ⁷	IT	D	7
Coffee (ground roast)	Café molido	ROA	NP	0.20			mn	HPLC-FL	1	1987	De Kruijff et al. ¹⁴	NL	D	14
Coffee (regular roasted)	Café tostado en grano normal	ROA	NP	0.36			mn	HPLC-FL	3	1987	Hischenhuber and Stijve ¹¹	CH	D	11
Coffee (brew prepared from decaffeinated coffee)	Café líquido preparado a partir de café tostado descafeinado	ROA	NP	0.0034	0.00315		mn	HPLC-FL	2	1999	Kayali-Sayadi et al. ¹²	ES	D	12
Coffee (brew prepared from roasted coffee)	Café líquido preparado a partir de café tostado normal	ROA	NP	0.0024	0.00302		mn	HPLC-FL	2	1999	Kayali-Sayadi et al. ¹²	ES	D	12
Coffee (decaffeinated roasted)	Café tostado en grano descafeinado	ROA	NP	0.27			mn	HPLC-FL	3	1987	Hischenhuber and Stijve ¹¹	CH	D	11
Tea (black)	Té negro	BO	NP	0.0098	0.01		mn	GC	1	1998	Kayali-Sayadi et al. ¹³	ES	D	13
Tea (decaffeinated)	Té descafeinado	BO	NP	0.0042	0.0023		mn	GC	1	1998	Kayali-Sayadi et al. ¹³	ES	D	13
Tea (green)	Té verde	BO	NP	0.0015	0.0084		mn	GC	1	1998	Kayali-Sayadi et al. ¹³	ES	D	13

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ANNEX / ANEXO

COOKING METHOD DEFINITION / DEFINICIÓN DEL MÉTODO DE COCCIÓN

Barbecued/Grilled:	cooked on an open grate over a heat source.	Not available:	Information on the cooking method used not available.
A la barbacoa:	cocinado en una parrilla de rejilla, encima de una fuente de calor.	No disponible:	no está disponible la información sobre el método de cocción empleado.
Baked/ Roasted:	cooked in a oven, with very little or no added liquid (roasted).	Not applicable:	the cooking method is not applicable
Al Horno:	Cocinado en un horno, añadiendo muy poco líquido o sin añadir líquido (asado).	No aplicable:	no es aplicable ningún método de cocción
Boiled:	cooked in a large amount of boiling liquid.	Raw:	generic descriptor for foods on which no cooking method was applied.
Hervido:	Cocinado en una gran cantidad de líquido en ebullición.	Crudo:	descriptor genérico para alimentos no sometidos a ningún método de cocción.
Broiled:	cooked directly below a heat source, such as an oven set to "broil".	Smoked:	exposure to smoke from smouldering hard woods or artificial smoke aromas
A la plancha:	cocinado directamente bajo una fuente de calor, p.e. en un horno hasta que el alimento se oscurece	Ahumado:	cocinado mediante exposición a humo de maderas quemadas o a aromas artificiales ahumados
Cooked:	generic descriptor used when the cooking method is not available.	Stewed:	Covered with liquid and cooked slowly for a long period of time.
Cocinado:	descriptor genérico en el caso de que se desconozca el método de cocción empleado.	Estofado:	Cocinado en un recipiente cerrado con líquido, lentamente durante largo tiempo.
Fried:	cooked in a hot oil	Toasted:	cooked with direct dry heat until the surface of the food is brown (for bread, cereals).
Frito:	cocinado en aceite caliente	Tostado:	cocinado en una fuente seca de calor directa hasta que la superficie del alimento se oscurece (para pan,cereales).
Microwaved:	cooked completely in a microwave oven.		
Al microondas:	cocinado en un horno microondas.		



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