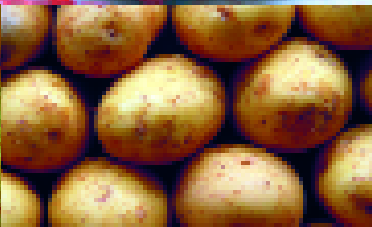
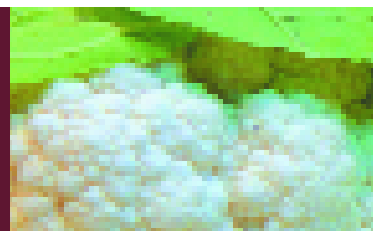
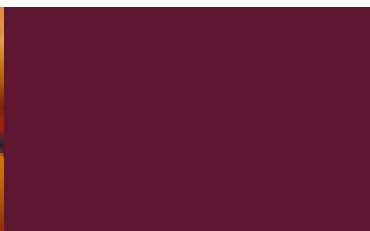
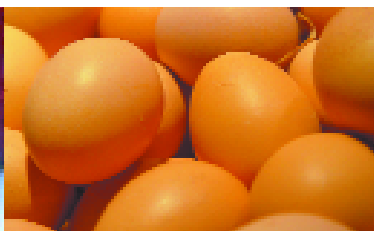


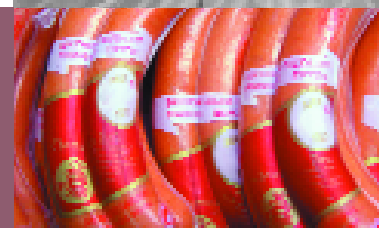
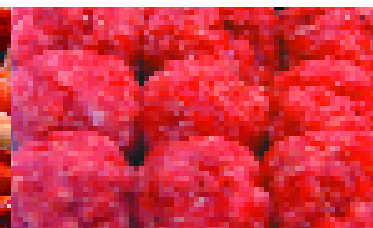
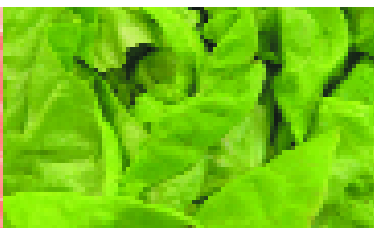
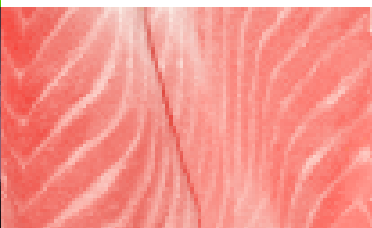
## FOOD CONTENT OF POTENTIAL CARCINOGENS

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



## CONTENIDO DE SUSTANCIAS POTENCIALMENTE CANCERÍGENAS EN ALIMENTOS

Nitratos, nitritos, nitrosaminas, aminos heterocíclicos e hidrocarburos aromáticos policíclicos



**NITROSAMINES AND NITROSAMINE PRECURSORS**  
**NITROSAMINAS Y PRECURSORES DE NITROSAMINAS**



POTATOES AND TUBERS / PATATAS Y TUBÉRCULOS

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

## VEGETABLES / VEGETALES

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

## VEGETABLES / VEGETALES

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

## VEGETABLES / VEGETALES

| Food           | Alimento       | Cooking method | Preservation method | Nitrates mg/100g | Value | Nitrites mg/100g | Value | NDMA $\mu$ /100g | NPIP $\mu$ /100g | NPYR $\mu$ /100g | NPro $\mu$ /100g | Comb. $\mu$ /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 <sup>13</sup> | US           | C      | 2    |
| Onion          | Cebolla        | RA             | FR                  | 4.80             | mn    |                  |       |                  |                  |                  |                  |                   |          |       | HPLC             | 3               | 1998 | Food Standards Agency <sup>3</sup>          | SC           | D      | 3    |
| Onion          | Cebolla        | RA             | FR                  | 1.70             | w     | 0.03             | w     |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1982 | French National Inventory <sup>12</sup>     | FR           | C      | 1    |
| Onion          | Cebolla        | RA             | FR                  | 23.5             | mn    | 0.11             | mn    |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Parsley        | Perejil        | RA             | FR                  | 138              | mn    | 0.00             | mn    |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Peas           | Guisantes      | RA             | FR                  | 0.10             | w     | 0.07             | w     |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1982 | French National Inventory <sup>12</sup>     | FR           | C      | 1    |
| Peas           | Guisantes      | RA             | FR                  | 4.00             | mn    | 0.09             | mn    |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Pepper (sweet) | Pimiento dulce | RA             | FR                  | 16.5             | mn    | 0.06             | mn    |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Pumpkin        | Calabaza       | RA             | FR                  | 55.0             | mn    | 0.08             | mn    |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Radish         | Rábano         | RA             | FR                  | 258              | w     | 0.48             | w     |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1982 | French National Inventory <sup>12</sup>     | FR           | C      | 1    |
| Radish         | Rábano         | RA             | FR                  | 260              | mn    | 0.03             | mn    |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Spinach        | Espinaca       | RA             | FR                  | 163              | mn    |                  |       |                  |                  |                  |                  |                   |          |       | HPLC             | 3               | 1998 | Food Standards Agency <sup>3</sup>          | SC           | D      | 3    |
| Spinach        | Espinaca       | RA             | FR                  | 44.3             | w     | 0.77             | w     |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1982 | French National Inventory <sup>12</sup>     | FR           | C      | 1    |
| Spinach        | Espinaca       | RA             | FR                  | 247              | mn    | 0.38             | mn    |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Tomato         | Tomate         | RA             | FR                  | 1.70             | mn    |                  |       |                  |                  |                  |                  |                   |          |       | HPLC             | 3               | 1998 | Food Standards Agency <sup>3</sup>          | SC           | D      | 3    |
| Tomato         | Tomate         | RA             | FR                  | 3.10             | w     | 0.03             | w     |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1982 | French National Inventory <sup>12</sup>     | FR           | C      | 1    |
| Tomato         | Tomate         | RA             | FR                  | 8.00             | w     | 0.00             | w     |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |
| Tomato         | Tomate         | RA             | FR                  |                  |       |                  |       |                  |                  |                  |                  | 0.187-0.27        | 1        | m     | GC-TEA           | 1               | 1991 | Xu et al. <sup>8</sup>                      | CN           | D      | 8    |
| Turnip         | Nabo           | RA             | FR                  | 53.5             | mn    |                  |       |                  |                  |                  |                  |                   |          |       | NA               | 4               | 1981 | U.S Assembly of Life Sciences <sup>13</sup> | US           | C      | 2    |

VEGETABLES / VEGETALES

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

FRUITS / FRUTAS

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



## MILK AND DAIRY PRODUCTS / LECHE Y DERIVADOS

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

MILK AND DAIRY PRODUCTS / LECHE Y DERIVADOS

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

CEREALS AND CEREAL PRODUCTS / CEREALES Y DERIVADOS

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

## MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

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

## MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

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

## MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

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

MEAT AND MEAT PRODUCTS / CARNES Y  
DERIVADOS

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

## MEAT AND MEAT PRODUCTS / CARNES Y DERIVADOS

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



MEAT AND MEAT PRODUCTS / CARNES Y  
DERIVADOS

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

## FISH / PESCADO

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

EGGS / HUEVOS

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

FATS (ADDED) / GRASAS (AÑADIDAS)

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

## ALCOHOLIC BEVERAGES / BEBIDAS ALCOHÓLICAS

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

NON ALCOHOLIC BEVERAGES / BEBIDAS NO ALCOHÓLICAS

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

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