

# Regulation of Arsenic under Food Adulteration (Metallic Contamination) Regulations

## 《食物攙雜(金屬雜質含量)規例》 中關於砷的規管

# Background

## 背景

- The Food Adulteration (Metallic Contamination) Regulations (Cap. 132V) (the Regulations) regulates the level of metallic contaminants in food and prescribes the maximum permitted concentration of seven specified metals present in specific food types. The seven specified metals are antimony, arsenic, cadmium, chromium, lead, mercury and tin.
- 《食物攙雜（金屬雜質含量）規例》（第132V章）（《規例》）規管食物內金屬雜質的含量。《規例》訂明指明食物類別所蘊藏的七種指明金屬的最高准許濃度，該七種指明金屬涵蓋銻、砷、鎘、鉻、鉛、汞和錫。

# Maximum permitted concentration 最高准許濃度

- Their respective maximum permitted concentration is set out at Schedules in the Regulations.
- 有關的最高准許濃度見《規例》附表。

# Schedule 1

## 附表1

Schedule:	1	MAXIMUM PERMITTED CONCENTRATION OF CERTAIN METALS NATURALLY PRESENT IN SPECIFIED FOODS		30/06/1997
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[regulation 3]

A	B	C
Metal	Description of food	Maximum permitted concentration in parts per million
Arsenic (As <sub>2</sub> O <sub>3</sub> )	Solids being fish and fish products	6
	Solids being shellfish and shellfish products	10

附表：	1	指明食物所天然蘊藏的某些金屬的最高准許濃度		30/06/1997
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[第3條]

A	B	C
金屬	食物類別	最高准許濃度 (百萬分率)
砷 (As <sub>2</sub> O <sub>3</sub> )	固體食物(魚及魚產品)	6
	固體食物(介貝類水產動物及介貝類水產動物產品)	10

# Schedule 1

## 附表1

- Arsenic ( $\text{As}_2\text{O}_3$ ) refers to inorganic arsenic because
  - (i)  $\text{As}_2\text{O}_3$  is the chemical formula of arsenic trioxide, which is belonged to inorganic arsenic compounds.
  - (ii) Inorganic forms of arsenic are more toxic to humans than its organic counterparts.
- 砷( $\text{As}_2\text{O}_3$ )是指無機砷，因為
  - (i)  $\text{As}_2\text{O}_3$ 是三氧化二砷的化學式，是屬於無機砷化合物。
  - (ii) 無機砷對人體的毒性比有機砷大。

# Schedule 2

## 附表2

Schedule:	2	MAXIMUM PERMITTED CONCENTRATION OF CERTAIN METALS PRESENT IN SPECIFIED FOODS	30/06/1997
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[regulation 3]

A Metal	B Description of food	C Maximum permitted concentration in parts per million
Antimony (Sb)	Cereals and vegetables	1
	Fish, crab-meat, oysters, prawns and shrimps	1
	Meat of animal and poultry	1
Arsenic (As <sub>2</sub> O <sub>3</sub> )	Solids other than-	
	(i) fish and fish products; and	1.4
	(ii) shellfish and shellfish products	0.14
Cadmium (Cd)	All food in liquid form	0.1
	Cereals and vegetables	2
	Fish, crab-meat, oysters, prawns and shrimps	0.2
Chromium (Cr)	Meat of animal and poultry	1
	Cereals and vegetables	1
	Fish, crab-meat, oysters, prawns and shrimps	1
Lead (Pb)	All food in solid form	6
	All food in liquid form	1
Mercury (Hg)	All food in solid form	0.5
	All food in liquid form	0.5
Tin (Sn)	All food in solid form	230
	All food in liquid form	230

附表：	2	指明食物所蘊藏的某些金屬的最高准許濃度	30/06/1997
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[第3條]

A 金屬	B 食物類別	C 最高准許濃度 (百萬分率)
銻 (Sb)	穀類及蔬菜	1
	魚、蟹肉、蠔、明蝦及小蝦	1
	動物肉類及家禽肉類	1
砷 (As <sub>2</sub> O <sub>3</sub> )	不屬於以下類別的固體食物—	
	(i) 魚及魚產品；及	1.4
	(ii) 介貝類水產動物及介貝類水產動物產品	0.14
鎘 (Cd)	所有液體食物	0.1
	穀類及蔬菜	2
	魚、蟹肉、蠔、明蝦及小蝦	0.2
鉻 (Cr)	動物肉類及家禽肉類	1
	穀類及蔬菜	1
	魚、蟹肉、蠔、明蝦及小蝦	1
鉛 (Pb)	動物肉類及家禽肉類	1
	所有固體食物	6
汞 (Hg)	所有液體食物	1
錫 (Sn)	所有固體食物	0.5
	所有液體食物	0.5
錫 (Sn)	所有固體食物	230
	所有液體食物	230

# Arsenic Level in Oyster Sauce

## 蠔油中砷的含量

- Oyster sauce is considered as liquid food in the measurement of arsenic level. Based on the Regulations, the maximum permitted concentration is 0.14ppm of inorganic arsenic ( $\text{As}_2\text{O}_3$ ).
- 當計算蠔油中砷的含量，應視蠔油為液體食物。因此根據《規例》，最高准許濃度應為百萬分之零點一四(0.14 ppm)，以無機砷( $\text{As}_2\text{O}_3$ )計算。

# “Liquid” and “Solid” in the Regulations

## 《規例》中的“液體”及“固體”

(Only for Reference)

僅供參考

- There is no elaboration on the meaning of “Liquid” and “Solid” in the Regulations.
- 《規例》未有列出“液體”及“固體”的定義



# “Liquid” and “Solid” in dictionaries

## 字典中的“液體”及“固體”

(Only for Reference)

僅供參考

### ■ “Liquid”

- <sup>1</sup>A substance that flows freely but is of constant volume, having a consistency like that of water or oil.
- <sup>2</sup>液體

<sup>1</sup> <http://www.oxforddictionaries.com/definition/english/liquid>

<sup>2</sup> Oxford Advanced learner's English-Chinese Dictionary

# “Liquid” and “Solid” in dictionaries

## 字典中的“液體”及“固體”

### (Only for Reference)

### 僅供參考

#### ■ “Solid”

- ❑ <sup>1</sup>Firm and stable in shape; not liquid or fluid.
- ❑ <sup>1</sup>Having three dimensions.
- ❑ <sup>1</sup>Not hollow or containing spaces or gaps
- ❑ <sup>1</sup>Dependable; reliable
- ❑ <sup>2</sup>非液體／氣體
- ❑ <sup>2</sup>無空隙
- ❑ <sup>2</sup>結實
- ❑ <sup>2</sup>可靠

<sup>1</sup> <http://www.oxforddictionaries.com/definition/english/solid>

<sup>2</sup> Oxford Advanced learner's English-Chinese Dictionary

# Offences and penalties

## 罪行及罰則

- The current Regulations contain provisions which explicitly prohibit the import, manufacturing and sale of any food containing any metal in such amount as to be dangerous or prejudicial to health. Offenders are liable to a maximum fine of \$50,000 and imprisonment up to six months.
- 現行《規例》已同時載有條文，明確禁止輸入、製造及出售金屬含量足以危害或損害健康的任何食物，違例者最高可處罰款五萬元及監禁六個月。

The Centre for Food Safety, as regulatory agency, can offer advice on the general principle only and would not offer comment on individual food product. If in doubt, you may consider seeking advice from your legal adviser or food specialist to ensure compliance with the laws in Hong Kong SAR.

請注意，食物安全中心作為食物安全監管機構，只會提供一般指引，而不會就個別產品給予意見。如有需要，請諮詢你的法律顧問或食物學的專家，以確保符合香港有關法例。

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Thank you  
謝謝

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