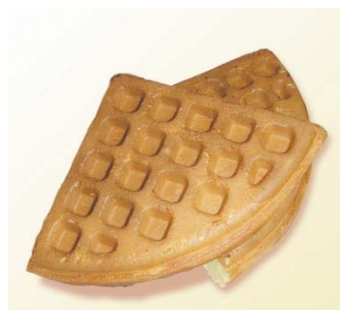


Reducing the Use of Aluminium-containing Food Additives



Trade Consultation Forum

28.2.2014

Content

- Local studies on aluminium in food
- Guidelines on the Use of Aluminium-containing Food Additives and communications with Trade
- Regulatory control on aluminium-containing food additives



Local Studies on Aluminium in Food (1)

- CFS released the report of a Risk Assessment Study on Aluminium in Food in May 2009
- **Summary of study findings**
 - Aluminium-containing food additives are widely used in the production of steamed bread/bun/cake, some bakery products and jellyfish
 - The average adult* dietary exposure to aluminium was estimated to be 0.60 mg/kg bw/week

*Assuming adult body weight was 60kg



Aluminium Content in Food

Food groups	No. of samples taken	Mean aluminium level (mg/kg) [range]
<u>(i) Bakery product</u>	97	
♦Bread /roll	15	5 [1 – 28]
♦Tart other than coconut tart	16	12 [1 – 87]
♦Cookies/biscuits	15	16 [1 – 88]
♦Chinese pastry	10	33 [1 – 180]
♦Doughnut	5	59 [1 – 160]
♦Cake	15	91 [1 – 220]
♦Coconut Tart	6	120 [65 – 180]
♦Pancake / Waffle	10	160 [1 – 710]
♦Muffin	5	250 [6 – 510]

Aluminium Content in Food

Food groups	No. of samples taken	Mean aluminium level (mg/kg) [range]
<u>(ii) Steamed bread/bun/cake</u>	61	
♦ Steamed bread (without filling)	14	100 [3 – 230]
♦ Steamed bun (with filling)	36	130 [4 – 270]
♦ Steamed cake	11	320 [200 – 570]
<u>(iii) Jellyfish (ready-to-eat form)</u>	15	1200 [400 – 1800]
<u>(iv) Snack including fried snack product</u>	30	
♦ Leavening products	15	20 [1 – 110]
♦ Deep fried dough	15	46 [2 – 330]



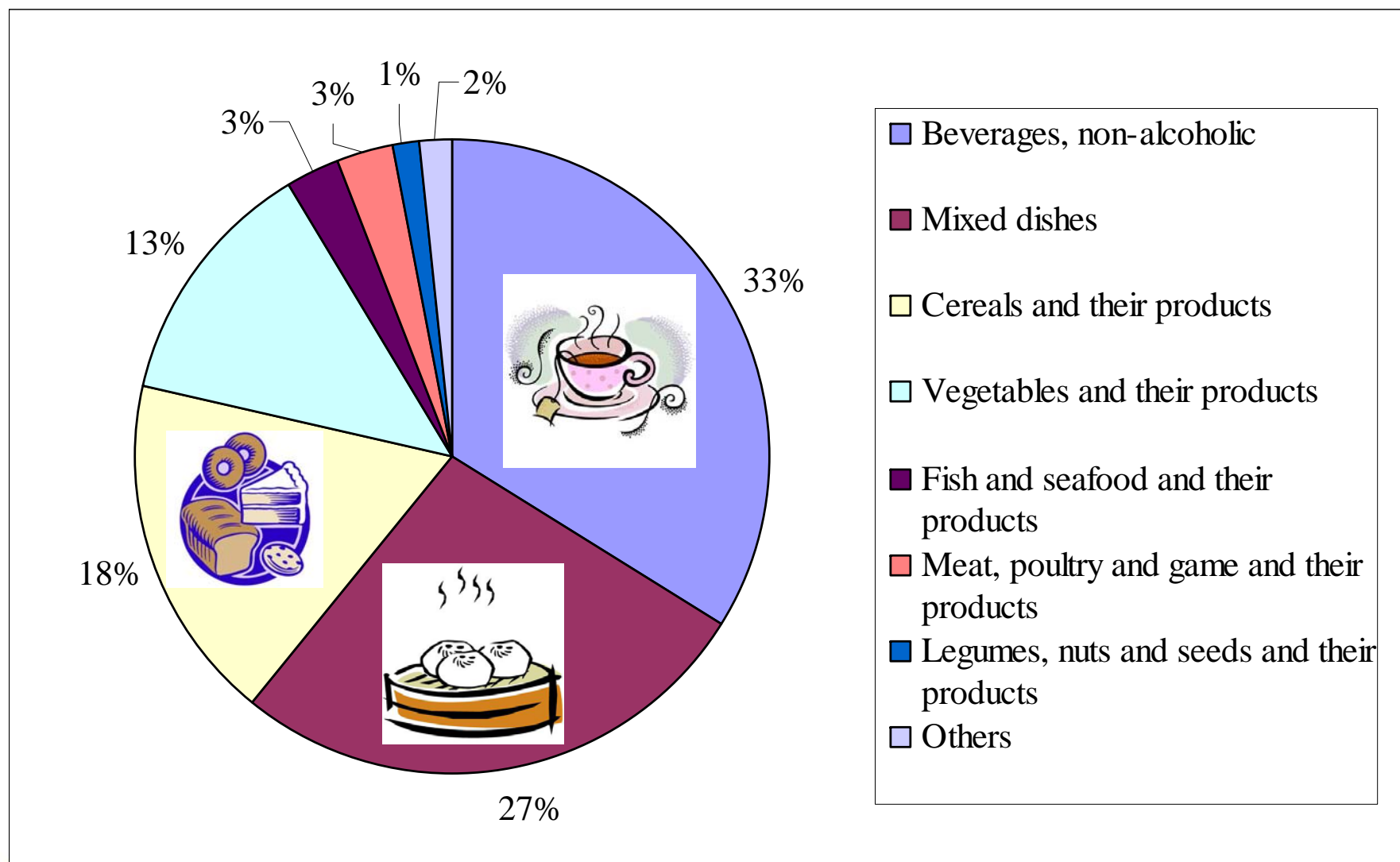
Local Studies on Aluminium in Food (2)

- CFS released the 5th report of Total Diet Study on Metallic Contaminants in Food in Jan 2013
- Summary of study findings
 - Food group with the highest mean aluminium content detected was “Cereals and their products”
 - The dietary exposures to aluminium among average and high consumers were estimated to be 0.60 mg/kg bw/week (30% **PTWI***) and 1.5 mg/kg bw/week (77% PTWI), respectively

* Provisional Tolerable Weekly Intake (PTWI) for aluminium was established by JECFA in 2011 at 2.0 mg/kg bw/week



Major Food Contributors to Aluminium Exposure



Some Food Items Remained High in Aluminium Content

Food Items	Mean (mg/kg)	Range (mg/kg)
1. Deep fried dough		
RA Study (2009) (15 samples)	46	2-330
TDS (2013) (4 samples)	250	50-450
2. Steamed barbecued pork bun		
RA Study (2009) (5 samples)	150	37-220
TDS (2013) (4 samples)	170	110-240



Local Studies on Aluminium in Food

Conclusion

- Unlikely to cause adverse health effect of aluminium for the general population
- Cannot rule out adverse health effect of aluminium for some population subgroup who regularly consume foods added with aluminium-containing food additive such as steamed bread/bun/cake, bakery products and jellyfish
- Efforts should be made to reduce exposure to aluminium to protect public health

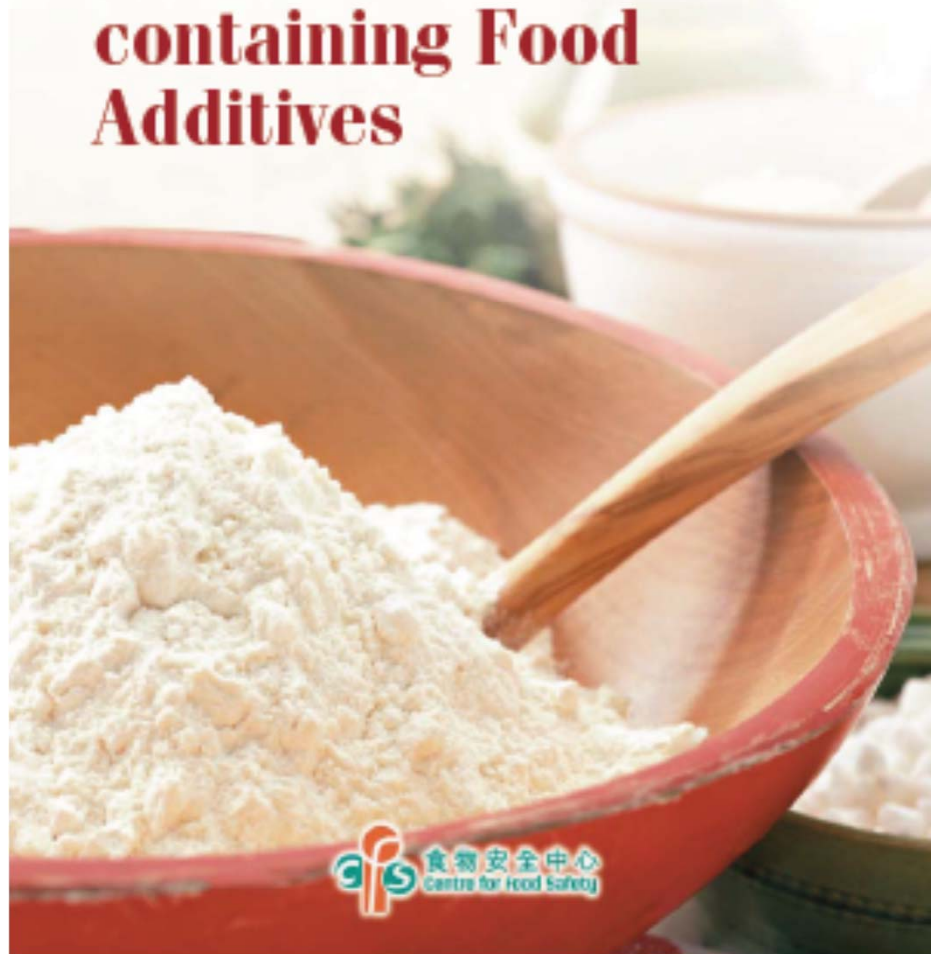


Working with the Trade to reduce exposure to aluminium for the public

- A Working Group has been set up
 - To establish Guidelines for Traders' reference
 - Comprising representatives from the Trade and Academia
- Collect Traders' feedback on the draft Trade Guidelines via Trade Consultation Forum and CFS website
- Issued Trade Guidelines in June 2009



Guidelines on the Use of Aluminium- containing Food Additives



Released in June 2009



Guidelines on the Use of Aluminium-containing Food Additives

*Applicable to all manufacturers and producers
(including restaurants and bakeries)*

Basic Principles

Principle 1:

- The use of aluminium-containing food additives should be **reduced or replaced with other alternatives** in preparing food as far as possible



Guidelines on the Use of Aluminium-containing Food Additives

Basic Principles

Principle 2:

- **Alternative techniques** for food processing should be developed to reduce the use of aluminium-containing food additives



Communicating with the Trade on Aluminium and Aluminium-containing Food Additives

Year	Channels
2009	15 th , 16 th & 17 th Trade Consultation Forum
	<i>Food Safety Express</i> distributed to all licensed food premises
	<i>Food Safety Focus</i> uploaded in CFS website
2012	37 th Trade Consultation Forum
2013	38 th Trade Consultation Forum
	Food Safety Seminar for Trade 2013



Communicating with the Trade on Aluminium and Aluminium-containing Food Additives

- Some Traders have actively adopted relevant measures and re-formulated their products
 - Some products can be produced without aluminium-containing food additives and have been released into the market successfully



Regulatory Control on Aluminium-containing Food Additives

Update on Codex Latest Development

- In response to the latest revision of PTWI for aluminium to 2 mg/kg bw by JECFA (2011), there was a **need to review the provisions for aluminium-containing food additives in the GSFA to ensure that their maximum use levels are compatible with the PTWI**
- **Codex Committee on Food Additives**
 - Only numerical maximum levels (MLs) (expressed as aluminium basis) are set for aluminium-containing food additives
 - Revoked provisions and discontinued work on draft provisions for some aluminium-containing food additives
 - MLs have been lowered for some aluminium-containing food additives



Regulatory Control on Aluminium-containing Food Additives

Situation in HK

- Public Health and Municipal Services Ordinance
 - All food for sale in HK must be fit for human consumption
- No specific standards have been set for the use and use level of aluminium-containing food additives



Regulatory Control on Aluminium-containing Food Additives

Situation in HK

- **Food and Drugs (Composition and Labelling) Regulations**
 - If a prepackaged food contains a food additive including aluminium-containing food additive, such additive should be specified on the label accurately in the prescribed manner stipulated in the Regulations
 - List out the specific name or INS number, and functional class of the food additives being used



More Information

- Risk Assessment Study on Aluminium in Food
 - http://www.cfs.gov.hk/english/programme/programme_rafs/programme_rafs_fa_01_06.html
- Total Diet Study Report on Metallic Contaminants
 - http://www.cfs.gov.hk/english/programme/programme_firm/programme_tds_1st_HKTDS_report5_Metallic_Contaminants.html



More Information

- **Guidelines on the Use of Aluminium-containing Food Additives**
 - http://www.cfs.gov.hk/english/programme/programme_rafs/files/Guidelines_on_the_use_of_Al_additives_e.pdf
- **Codex General Standard for Food Additives (GSFA)**
 - <http://www.codexalimentarius.org/standards/gsfa-online-food-additives/en/>



Thank you

