December 2010 Reference:

Dear Sir or Madam,

Food Contact Materials, Contaminants and Irradiation – Update Bulletin December 2010

This latest issue of our periodic update bulletin will provide you with information on key developments in the above areas.

The attached summary of news items summarises the areas covered in this bulletin Clicking on the associated links will take you directly to the relevant material.

I hope you find this helpful.

Yours faithfully,

Terry Donohoe,
Acting Head,
Chemical Safety Division

Aviation House
125 Kingsway
London WC2B 6NH
T: 020 7276 8597

E: terry.donohoe@foodstandards.gsi.gov.uk

SUMMARY OF NEWS ITEMS

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KEY CONTACTS

England
Food Standards Agency, Chemical Safety Division, 125 Kingsway, London, WC2B 6NH.

Veterinary Medicines Residues and Food Contact Materials (VMR & FCM)
Edward Potter (FCM)
Tel:02072768550/ E-mail: edward.potter@foodstandards.gsi.gov.uk)

Modupe Ige (VMR)
Tel: 02072768542 E-mail: madupe.ige@foodstandards.gsi.gov.uk)

Mycotoxins, Pesticide Residues & Nitrates
Jonathan Briggs (Tel: 020 7276 8716 / E-mail: jonathan.briggs@foodstandards.gsi.gov.uk)

Organic Chemical Contaminants *(including Environmental Permitting Programme)*
David Mortimer (Tel: 020 7276 8731 / E-mail: david.mortimer@foodstandards.gsi.gov.uk)

Inorganic Contaminants
Christina Baskaran (Tel: 020 7276 8704
E-mail: christina.baskaran@foodstandards.gsi.gov.uk)

Process Contaminants
Gavin Shears (Tel: 020 7276 8713/ E-mail: gavin.shears@foodstandards.gsi.gov.uk)

Food Irradiation
Christopher Thomas
(Tel: 020 7276 8728 / E-mail: christopher.thomas@foodstandards.gsi.gov.uk)

Scotland
Will Munro
Food Safety Monitoring & Policy Branch
Food Standards Agency Scotland,
6th Floor, St Magnus House, 25 Guild Street, Aberdeen, AB11 6NJ.
E-mail: will.munro@foodstandards.gsi.gov.uk
Tel: 01224 285161
Fax: 01224 285168

Lauren Lindsay
Safety, Policy and Regulation Development
Food Standards Agency Scotland
6th Floor, St Magnus House, 25 Guild Street, Aberdeen, AB11 6NJ
E-mail: lauren@lindsay@foodstandards.gsi.gov.uk
Tel: 01224 285118
Fax: 01224 285168

Wales
Deb Morgan
Incidents and Environments / Digwyddiadau ac Amgylcheddau
Food Safety and Enforcement Division / Yr Is-adran Diogelwch Bwyd a Gorfodi
Food Standards Agency Wales / Asiantaeth Safonau Bwyd Cymru
11th Floor, South Gate House, Wood Street, Cardiff, CF10 1EW
E-mail: deb.morgan@foodstandards.gsi.gov.uk
Tel/ Ffon: 029 2067 8938
Fax/ Ffacs: 029 2067 8918

Northern Ireland
Esther Chartres
Local Authority Unit
Food Standards Agency, Northern Ireland, 10 A-C Clarendon Road, Belfast, BT1 3BG.
E-mail: esther.chartres@foodstandards.gsi.gov.uk
Tel: 028 9041 7737
Fax: 028 7728 7737

Food Contact Materials (Science & Policy)

Science

Research Surveys

A04016 – Year 4 Migration of selected ink components from printed packaging materials into foodstuffs.

The purpose of this latest survey is to study the migration of selected ink components such as photoinitiators and plasticisers from printed food-packaging materials into foodstuffs. Twenty one chemical components are being examined in some 350 foodstuffs packaged directly or indirectly in printed cartonboard purchased from retail outlets in the UK. The results will be published in the Summer of 2011.

Importation of melamine ware and nylon cookware from China

The draft legislation on requirements for melamine ware and nylon cookware imported from China continues to be revised. There will now be a requirement for pre-notification and the 50% of consignments for the checks has been reduced to 10%. There is now also the requirement to notify the point of introduction. It is understood that the EU Reference Laboratory is going to publish guidance as to the number of articles that will need to be tested per consignment or batch. However, this will only be guidance and it will be up to the manufacturers to demonstrate that they have undertaken sufficient testing to prove that the articles within a batch are homogeneous and therefore that all the articles are compliant with the legislation. The likely implementing date is now April 2011 instead of January.

The Materials and Articles in Contact with Food (Scotland) Regulations 2010 (SSI 2010 No 327) came into force on 20th October 2010.

These regulations provide for the enforcement in Scotland of the remaining provisions of Commission Regulation (EC) No. 450/2009 (“the AIM Regulation”), on active and

intelligent materials and articles intended to come into contact with food. It designates local authorities as having responsibility for the enforcement of the AIM Regulation in Scotland.

This instrument provides for offences of contravening certain provisions of the AIM Regulation and for defences against prosecution for committing an offence in particular circumstances and specifies the penalties that the Courts may impose upon conviction for an offence.

This instrument will also revoke *The Materials and Articles in Contact with Food (Scotland) Regulations 2007*[1] as amended by *The Materials and Articles in Contact with Food (Scotland) (Amendment) Regulations 2009*[2] and re-enact them with necessary amendments, thus implementing them in one consolidated instrument, the AIM Regulations as well as other controls on materials and articles in contact with food.

Environmental Contaminants (Inorganic)

European Food Safety Authority Scientific Opinion on Lead

Recent opinions by the European Food Safety Authority (EFSA) and the Joint WHO/FAO Committee on Food Additives (JECFA) agree that it is not possible to set a tolerable lead intake and therefore minimisation of exposure to lead from all sources is desirable (particularly in respect to developmental neurotoxicity in young children, cardiovascular and nephrotoxicity effects in adults). Limits in the EU are currently aligned with those of CODEX (where set) and it appears that for many foods the typical levels found are well below the current limits, however, discussions have commenced at the Expert Working Group to review current EU limits and the Commission have produced a first draft of a discussion document. These are at a very early stage and robust data will be required to justify any future reductions or new limits. If you have data on lead occurrence that you consider would aid discussions and prove valuable in reviewing current limits and developing UK policy on this issue, please do let us have these as soon as possible.

Cereal products, vegetables and tap water contribute most to dietary exposure to lead for most Europeans, while dust and soil can be important non-dietary sources in children.

Lead Ammunition Group (LAG)

With regard to the issue of lead in game and whether or not this poses a risk to human health, the Lead Ammunition Group (LAG) set up in the UK to advise the Agency on the use of lead ammunition, is due to report in April 2011 and the Agency will reserve it views until it has an opportunity to consider this. The Agency has commissioned work to collect data on high level game consumption which will also report in April 2011 and inform our position.

Arsenic

At the October expert working group meeting there was a presentation from the EU Reference Laboratory (EURL) on arsenic proficiency testing. In summary there were large variations when testing shark (dogfish) liver for inorganic arsenic although this was not an

[1] SSI 2007 No. 471
[2] SSI 2009 No. 426

issue for rice where consistency was much better and considered satisfactory. Rice (and rice based products) is one of the major contributors to dietary exposure to inorganic arsenic.

Sea fish inorganic arsenic is not considered an issue as levels are accepted as being generally low, although it is not known if this is also the case for fresh water fish and bivalves.

The EURL is to look at inorganic arsenic methods for wheat, some vegetables and some seaweeds in future projects. The European Committee for Standardization (CEN) are also due to produce a standardised method for inorganic arsenic by 2013.

Stakeholders' views are sought including information on current industry measures to control levels of arsenic in rice and rice products. If you are able to provide useful data for arsenic in any products (particularly all cereal products, seaweed and vegetables) that may help inform future discussions on limits please do so as soon as possible.

A research requirement for 'Arsenic speciation in fruit and vegetables grown in the UK' was previously published by the Agency and details can be found at:

http://www.food.gov.uk/aboutus/how_we_work/procurement/resreq/

This now commissioned research and surveillance work regarding arsenic speciation in UK grown fruit and vegetables is due to be completed in December 2011.

Cadmium

At the October expert working group, it was considered whether in light of the latest EFSA opinion on cadmium, it may be necessary to consider lowering the maximum limits for cadmium in foods.

It was agreed to await EFSA's statement clarifying the differences in their recent opinion from JECFA's, which has a higher proposed tolerable intake.
The EU called for more data from Member states and stakeholders on cadmium in foods, particularly oilseeds and cereals so please submit any data that you feel will aid discussions.

Amendments to Commission Regulation (EC) No. 1881/2006 (Maximum levels for certain contaminants in foodstuffs)

At the October Working Group an amendment to Commission Regulation (EC) No. 1881/2006 was agreed that clarifies which portion of the crustacean may be sampled for cadmium. The maximum level set for cadmium in crustaceans in the Annex to the Regulation applies to muscle meat from appendages (legs and claws) and abdomen. For crabs and crab-like crustaceans, the maximum level applies to the appendages only. This definition excludes other parts of crustaceans, such as the cephalothorax of crabs and inedible parts (shell, tail). It was also agreed to apply this to all contaminants in crustacea to ensure a consistent approach.

There was support for the Commission's draft information note on consumption of brown crab meat was which was considered a good base that Member States can tailor to provide advice for consumers. The Agency will continue to look at this and develop appropriate guidance for the UK in due course.

Cadmium

There are also a number of other minor amendments and clarifications. Since green shell mussel powder and oyster powder, like dried seaweed, are sold as food supplements, the maximum level for cadmium in dried bivalve mollusc is proposed to be the same as the one currently established for dried seaweed and products derived from seaweed. Also, it was agreed that the provisions for leafy brassica should be aligned with those of other leaf vegetables. Leafy brassica should therefore be excluded from the default maximum level for cadmium in "vegetables and fruit" in point 3.2.15. of the annex and should be included in a new point 3.2.17 (maximum limit of 0,20 mg/kg wet weight). Seaweed is to be exempted from the default maximum levels for lead and cadmium in fruit and vegetables (points 3.1.10 and 3.2.15).

Furthermore, where inconsistencies exist between foodstuffs/product groups in Regulation (EC) No 1881/2006 and the names of the foodstuffs/product groups listed in Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC[3], as Regulation (EC) No 1881/2006 refers to the product groups listed in Regulation (EC) No 396/2005 these names are to be aligned to that Regulation.

At the November 2010 meeting of the Standing Committee on Food Chain and Animal Health (SCoFAH) changes to Commission Regulation 1881/2006 to provide clarity regarding the testing of crab meat for certain contaminants, particularly cadmium, were agreed by all Member States.

The Agency will inform interested parties when the amendment is published in the official journal (OJ) of the EU.

The Commission has also requested more occurrence data for lead and cadmium in seaweed to inform discussions on maximum limits.

Contact Information

If you have any questions or comments regarding any of the above, or any information or data that you would like to submit, please contact Gavin Shears (E-mail: gavin.shears@foodstandards.gsi.gov.uk / Tel: 020 7276 8713).

Process Contaminants

Acrylamide

The Agency in accordance with European Commission Recommendation (EU) No. 2010/307 is continuing to survey retail products for acrylamide and is carrying out a further survey of Acrylamide in UK Retails Products from November 2010 until April 2011. As well as providing extra data, this additional monitoring should provide the Commission and stakeholders with further evidence of the impact of the CIAA toolbox and help to inform future mitigation strategies.

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[3] OJ L 70, 16.3.2005, p. 1.

At the October expert working group there were further discussions on the draft Recommendation on investigations into the levels of acrylamide in food which included 'Guidance Values' for acrylamide. The Commission stated that there had been a lot of industry feedback and as a result the main change to be made to the acrylamide further investigations proposal was to rename 'Guidance Values' as 'Indicative Values' and link it explicitly to the surveillance Recommendation 2010/307/EU. There was also an agreement that the Commission would not publish it in the Official Journal. There is concern that the 'indicative values' may be seen as maximum limits, which is not the intention or purpose. The purpose is to gather useful data on higher acrylamide levels in certain foods specifically sampled under Commission Recommendation (EU) No. 2010/307 to inform best practice and deepen understanding of the issues faced by Food Business Operators (FBOs). It is not enforcement action.

The Agency received a lot of support from the Commission and Member states for its work leading on drafting an acrylamide 'Checklist' to be used by enforcement personnel when undertaking these investigations. It was agreed that the Agency would work further with stakeholders and continue with this drafting and draft guidance to accompany the checklist. The Commission agreed to be the conduit for feedback from Member states on this. The Agency's intention is to ensure a harmonised approach, gathering consistent and useful data and minimise the burden on FBOs and enforcement officers. The Agency will also liaise with enforcement officers accordingly to ensure they are informed and understand the requirements of the investigation.

The Commission wish to adopt the Recommendation on investigations into the levels of acrylamide in food by the end of the year and then re-assess the situation regarding acrylamide levels at the end of 2012 whether further measures were required depending upon the results received from Member States.

The Agency has formed a Stakeholders Drafting Group for the acrylamide checklist and guidance and a meeting was held on the 12th November 2010 where the Agency sought the further views of stakeholders. A further Stakeholders Drafting Group meeting was held on the 14th December 2010.

The Agency published in September the final Food Survey Information Sheet (FSIS) for the Process Contaminants Survey, which measured acrylamide, 3-MCPD, furan and ethyl carbamate from 2007 – 2009.

http://www.food.gov.uk/science/surveillance/fsisbranch2010/fsis0310

The Agency welcomes any data on acrylamide or any other process contaminants which may be used to inform UK policy and aid discussions.

Contact Information

If you have any questions or comments regarding any of the above, or any information or data that you would like to submit, please contact Gavin Shears (E-mail: gavin.shears@foodstandards.gsi.gov.uk / Tel: 020 7276 8713).

Environmental Contaminants (Organic)

Discussions from the Meeting of the Expert Committee on Environmental & Industrial Contaminants held on 11 October 2010

Polycyclic Aromatic Hydrocarbons (PAHs)

The new limits for PAHs are still being refined and the anticipated stakeholder consultation is now underway. The most recent proposals are shown below.

Among outstanding issues, the Commission believes that the confectionery industry are now content with the BaP limit of 5.0 µg/kg for cocoa butter although there is concern that the proposed limit for SUM4 may be too low.

For smoked foods, the Commission may accommodate calls from some Member States for tighter limits by introducing step changes in order to allow food businesses time to introduce process changes. However, there is still some concern that traditional smokeries may have difficulty in meeting the existing limits. In the case of bivalve molluscs, the previous BaP limit of 10.0 was high enough to cover both smoked and un-smoked. However, these have now been separated as the Commission believes the existing data justifies a distinction.

The Commission has also proposed limits for the cereals and vegetables groups, although it accepts that there is a paucity of data. The Food Standards Agency has commissioned a survey to generate more data, although this alone is unlikely to constitute a strong case to justify or challenge the need for limits. Any additional data would therefore be welcomed.

6.1		Maximum levels (µg/kg wet weight)	
		Benzo(a)pyrene	Sum of benzo(a)pyrene, benzo(a)anthracene, chrysene and benzo(b)fluoranthene
6.1.1	Oils and fats (excluding cocoa butter and coconut oil)	2.0	10.0
6.1.2	Cocoa butter	5.0	30.0
6.1.3	Coconut oil	2.0	20.0
6.1.4	Smoked meat and smoked meat products	5.0 until 31.12.2013 2.0 as from 1.1.2014	30.0 from 1.1.2012 until 31.12.2013 12.0 as from 1.1.2014
6.1.5	Muscle meat of smoked fish and smoked fishery products, excluding those in 6.1.6 and 6.1.7. Limit for smoked crustaceans applies to muscle meat from appendages and abdomen. Limit for smoked crabs and crab-like crustaceans (*Brachyura* and *Anomura*) applies to muscle meat from appendages.	5.0 until 31.12.2013 2.0 as from 1.1.2014	30.0 from 1.1.2012 until 31.12.2013 12.0 as from 1.1.2014
6.1.6	Smoked sprats and canned smoked sprats, bivalve molluscs (fresh, chilled or frozen)	5.0	30.0
6.1.7	Bivalve molluscs (smoked)	6.0	35.0
6.1.8	Processed cereal-based foods and baby foods for infants and young children	1.0	1.0
6.1.9	Infant formulae and follow-on formulae, including infant milk and follow-on milk	1.0	1.0
6.1.10	Dietary foods for special medical purposes intended specifically for infants	1.0	1.0
6.1.11	Cereals	(1.0)	(5.0)
6.1.12	Vegetables	(1.0)	(5.0)

The Commission is hoping to have a finalised proposal for approval early in 2011

Summary of calls for data

- PAHs, particularly in cocoa butter and coconut oil, cereals and cereal products, vegetables and vegetable products, directly smoked fish and meat, supplements.

There have been no meetings of the POPs Working Group since May. Nevertheless, data in the following areas would be welcomed.

- Dioxins and PCBs in all currently-regulated food groups, particularly ovine and bovine liver and pig meat.
- Non-dioxin like PCBs, particularly in freshwater fish and farm milk.
- Brominated flame retardants, notably polybrominated diphenyl ethers (PBDEs) in any foods
- PFOS and related compounds in any foods (both outstanding from previous bulletins)

For further information or to submit comments or data relating to dioxins, PCBs, PAHs, BFRs and PFOS, please contact David Mortimer
(E-mail: david.mortimer@foodstandards.gsi.gov.uk / Tel: 020 7276 8731)

Mycotoxins

Survey of mycotoxins in cereal-based foods

The Agency has published the results of a survey investigating the levels of certain naturally-occurring chemicals called mycotoxins in a range of cereals and-cereal based foods. This is the first year's results from a four-year rolling surveillance programme.

The survey found that 97% of samples were below the legal limits for mycotoxins. Only 7 of the 220 samples analysed contained levels of mycotoxins above the legal limits. The Agency took immediate action to ensure any non-compliant products were withdrawn from the market.

The science behind the story

Mycotoxins are naturally-occurring chemicals produced by certain fungi. Some of these mycotoxins have been associated with a variety of human health problems and are therefore regulated within the European Union to minimise people's exposure. Mycotoxins can occur in a wide range of foods, including cereals, nuts, spices, fruit, coffee, milk and alcoholic beverages.

Related links

http://www.food.gov.uk/news/newsarchive/2010/nov/mycotoxinsurvey

If you have any questions or comments regarding any of the above, or any information or data that you would like to submit, please contact Jonathan Briggs (E-mail: jonathan.briggs@foodstandards.gsi.gov.uk / Tel: 020 7276 8716).