

New fresh taste!

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Soy sauce contaminant is common in UK food

Soy sauce got the blame, but bread and biscuits carry greater contamination

The finding of high levels of a carcinogenic contaminant - known as 3-MCPD - in several brands of soy sauce hit national headlines in June. Yet, the figures show that over twice as much of this chemical is in UK-produced food than in anything we import from the Orient.

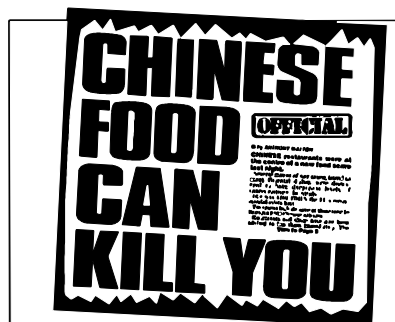
The soy sauce survey was released at a time when China is greatly increasing its food exports to Europe, potentially undercutting local suppliers. It also comes as an EU inspection team which visited China this spring is preparing a report on Chinese food manufacturing.

Concerned that China was being picked on unfairly, we looked at other surveys of 3-MCPD in our food, and found that soy sauce is not the only problem.

Although some soy sauce products had levels of 3-MCPD hundreds of times higher than any other food (a specific hazard to people who eat soy sauce frequently) the levels of 3-MCPD in common products like bread, savoury biscuits and beef burgers were also significantly above recommended maximum levels.

For a list of typical products and levels found, see page 3.

Because these common foods are produced and eaten in large quantities, the total exposure of the population is going to be greater from UK-made products than it is from soy sauce.



Tabloid headlines followed the Food Standards Agency's hazard alert on soy sauce, inflating the anti-Chinese angle.

3-MCPU in the food supply	
First order estimate of quantities of 3-MCPD entering the food chain (micrograms)	
soy sauce	21 bn bread
35 bn savoury biscuits	10 bn beef burgers
burgers	2 bn*

* this figure excludes take-away burgers, which are also known sources of 3-MCPD

One law for us ...

While the European Commission has set a legal limit of 20 meg of 3-MCPD per litre of soy sauce and per kilogram of hydrolysed vegetable

protein (HVP), it has not set a limit for the presence of 3-MCPD in any other foods.

EC advisors on the Scientific Committee for Food ate expected to recommend that levels of 3-MCPI) in other foods should be reduced only to 'the lowest technologically achievable'.

As a result, one law will apply to oriental soy sauce, and another to most European products.

The assumption is made that contamination is entering the soy sauce by the use of HVP as a flavour booster. But a careful look at the survey shows that, of the nine products stating that they contain HVP, four were not contaminated with 3-MCPD.

Furthermore, of the 30 products labelled as 'traditionally brewed' or 'naturally brewed' (which should mean uncontaminated) six were contaminated with 3-MCPD.

With no clear source of contamination, perhaps soy sauce should be regulated to European standards, i.e. with 3-MCPD reduced to 'technologically achievable' levels.

Or, better still, UK-made products should be regulated as strongly as imported soy sauce.

M Brand name lists - see page 3

Also in *The Food Magazine*

Guerilla Marketing



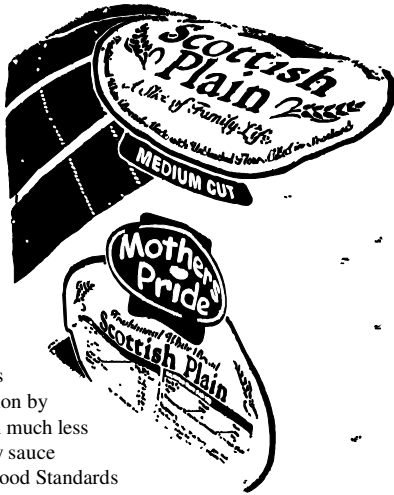
contamination --

3-MCPD in everyday food

The contaminant 3-MCPD - full name 3-monochloropropane-1,2-diol - has been shown to be both mutagenic and carcinogenic in tests on living cells, although only the carcinogenicity has been confirmed in animal experiments. As we report on the front cover, a survey of soy sauce contamination led to tabloid headlines condemning Chinese food. The contaminant, 3-MCPD, had been found at high levels in some soy sauce brands.

However, soy sauce contributes only a part of the total contamination by 3-MCPD of our food supply. With much less publicity than was given to the soy sauce survey, in February this year the Food Standards Agency released a survey of the 3-MCPD levels in 300 retail foods, which found 3-MCPD in bread, cream crackers, anchovy fillets and beef burgers (see table, right).

Asked why this is happening, the Food Standards Agency's Dr Karen Goonan admitted that there appeared to be no obvious explanation. 'We don't know why or how 3-MCPD is produced in these foods,' she told *The Food Magazine*. 'The contamination levels are not even consistent from one batch to the next.'



Common food products like these savoury biscuits and white bread can contain levels of 3-MCPD that are illegal in soy sauce.



Anti-Chinese whispers

The attack on soy sauce comes when the Chinese are expanding their exports to Europe, and a European inspection team is preparing a report on Chinese food production.

When the EU's inspection team publishes its report on its visit to China this autumn we shall be watching. If it gives China a favourable judgement then perhaps the tabloid press should apologise.

If, though, it finds evidence for bad practices then what will the inspectors tell China to do about it - and what are they telling our own food companies?

Indeed, we hope the report will compare their findings in China with their findings from equivalent inspections in Europe.

And when the report is published, will the FSA remind us of the soy sauce contamination, and potentially stir up more anti-Chinese jingoism?

Or will they remember that, of the 32 soy sauces with 3-MCPD that created the anti-Chinese headlines, only 10 said 'Made in China'? The majority were imported from Thailand, Singapore, Honk Kong, Taiwan, the Philippines, Korea and Malaysia.

3-MCPD in non-oriental foods

The threshold limit for detection of 3-MCPD is 10 micrograms per kilogram (mcg/kg) of food (equivalent to 10 parts per billion). The European Commission has set a maximum limit of 20 mcg/kg for HVP and soy sauce, to become law next year. Legal limits have not been set for other foods.

A UK government survey of 300 general grocery items found that 89 contained traces of 3-MCPD. The highest levels (over 30 mcg/kg) were as follows:

	3-MCPD mcg/kg
Mother's Pride Scottish medium white-sliced bread	49
Mother's Pride Scottish Traditional white bread	35
Jacob's Original Twinets	34
Jacob's Cream Crackers M-cVitie's-	40
Krackawheat	87
Sainsbury's Cream Crackers	46
Asda 50% less fat Cream Crackers	116
Asda digestive biscuits	32
Safeway Cream Crackers	41
Tesea 50% lower fat Cream Crackers	107
Safeway half-fat Cream Crackers	40
Tesco Melba Toast	30
Jacob's Continental Pecan Toast	88
Jacob's Continental Raisin Toast	W
Pains Jacquot Toast Français	-
Asda French Toast	.75
Asda Malba Toast	-
Morrison's Original Crispbread	32
Kraft Dairy Lea thick cheese slices	50
Sainsbury's Singles cheese	37-
Tesco 1141b Chargrilled Beefburgers	31
Sainsbury's Chargrilled Beefburgers	31
Sainsbury's Hot'n Spicy Chicken	31
Drumsticks	42 71
John West Flat Fillets of Anchovies in olive oil	8
Landwirt Nolke German mini salami	1
Sainsbury's Strafinc salami	6

Note: Soy sauces tested had contamination levels ranging from 'undetected' to several hundred times the levels reported for the foods listed above.

Source: FSA Food Surveillance Sheet 12101, February 2001.

Now food companies are by-passing parents and advertising directly to children.