

**To: Heads of Environmental Health Service
Directors of Trading Standards Services**

cc: CIEH, TSI

Title: EU alkaline phosphatase activity in cheese proposals	Date: 3 May 2017
<p>The European Commission has brought forward proposals to set down a legal limit for alkaline phosphatase activity in cheese made with pasteurised cows' milk and establish the official EU reference method for determination of alkaline phosphatase activity in such cheeses.</p> <p>FSA is therefore seeking stakeholders' views on the proposals which are set out in two draft European Commission Implementing Regulations.</p>	<p>Category:</p> <p>Food Hygiene</p> <p>Ref: ENF/E/17/034</p>
<p>Action required</p> <p>Please see the attachments which provides further information on these proposals and encloses the two draft amending EU Regulations.</p>	<p>Notification type:</p> <p>For information and possible action</p>

Dear Colleague,

Please bring this letter to the attention of relevant officers in your Authority.

The European Commission has brought forward proposals to set down a legal limit for alkaline phosphatase activity in cheese made with pasteurised cows' milk and establish the official EU reference method for determination of alkaline phosphatase activity in such cheeses.

FSA is therefore seeking stakeholders' views on the proposals which are set out in two draft European Commission Implementing Regulations:

- i. amending Regulation (EC) № 853/2004 which lays down specific hygiene rules for food of animal origin, introducing a limit for alkaline phosphatase activity in pasteurised cows' milk cheese; and
- ii. amending Regulation (EC) № 2074/2005 as regards testing methods for raw milk, heat treated milk and cheeses, introducing the official EU reference method for determination of alkaline phosphatase activity in cheeses made with pasteurised cows' milk.

Background:

Alkaline phosphatase is an intrinsic enzyme secreted by ruminants in their milk. It is inactivated by proper pasteurisation of milk and hence is used to determine the efficacy of the pasteurisation process. A 'negative' reaction to the alkaline phosphatase test is required to indicate correct pasteurisation. In the EU a value in excess of 350 milliunits per gram (mU/g) for cows' milk indicates that either the time/temperature combination ($\geq 71.7^{\circ}\text{C}$ for 15 s) has not been achieved or that pasteurised milk has been contaminated with raw milk. In either case this constitutes a health risk and warrants intervention.

Regulation (EC) No 853/2004 lays down specific rules on the hygiene of food of animal origin for food business operators. In particular, it sets out in Annex III, Section IX, Chapter II, Part II the specific requirements for heat treatment regarding the appropriate application of pasteurisation process of raw milk, colostrum, dairy products and colostrum based products and its effectiveness.

Regulation No 2074/2005 lays down implementing measures for certain products under Regulation (EC) No 853/2004, including testing methods that are to be used by competent authorities and, where appropriate, food business operators to demonstrate compliance with criteria set down in 853/2004. In particular, it sets out in Annex VI, Chapter II the official reference methods for determination of alkaline phosphatase activity in milk and cheese.

The Commission asked the European Union Reference Laboratory for milk and milk products (EURL MMP) in its 2008 work programme to give support in setting a legal limit at European level for alkaline phosphatase activity in cheese to characterise cheeses made from correctly pasteurised cow's milk. A particular objective of this initiative was to facilitate trade of European pasteurised cheeses with third countries which require testing of alkaline phosphatase activity in such cheeses to demonstrate correct pasteurisation.

Following successful development and validation of the fluorimetric method for the determination of the alkaline phosphatase activity in cheese (European/International Standard EN ISO 11816-2), to inform development of EU legislation the EURL MMP organised an EU-wide survey conducted by National Reference Laboratories (NRL) on pasteurised cow's milk cheeses produced in the Member States. This survey was designed to provide an evidence base to demonstrate whether an alkaline phosphatase value of $\leq 10\text{mU/g}$ would discriminate between cheese made from properly and improperly pasteurised milk. This survey found that 94% (641 out of 680) of European cheese samples showed alkaline phosphatase activity $< 10\text{mU/g}$. A summary report of the survey on UK cheeses carried out by the UK NRL MMP (Agri-Food and Biosciences Institute, Belfast) is attached for information. This indicated that UK cheeses had a probability of approximately 98% of meeting the $\leq 10\text{mU/g}$ value (considered likely to be an underestimate of probability).

Based on these results of the EU survey the Commission now proposes to prescribe the Standard EN ISO 11816-2 as the EU reference method for the control of cheese made from adequately pasteurised cows' milk and to set a legal limit at European level for alkaline phosphatase activity at 10mU/g for cheese made with pasteurised cow's milk.

The proposal provides flexibility for some pasteurised smear ripened cheese to exceed the proposed alkaline phosphatase limit of 10mU/g . This takes account of the finding that a proportion of such cheeses, tested as part of the EU-wide survey, contained a higher level of alkaline phosphatase activity. In such cases FBOs will be required to demonstrate that

the milk pasteurisation was properly carried out and that the 10mU/g limit cannot be met due to the characteristics of cheese processing.

FSA position:

This item was discussed at an EU Hygiene Working group meeting on 27 March, where we indicated that the UK is provisionally content with the suggested amendments to the legislation based on both the survey results and support for the method from the UK NRL MMP. However we have requested some more time to consult stakeholders and have agreed to confirm our position in writing to the Commission before proposals are presented to the Standing Committee in May.

Stakeholder views:

Please consider the draft Commission proposals to amend Regulations (EC) No 853/2004 and ((EC) 2074/2005 (see attached). Please be aware that where changes to legislation would impact on you or your business then the information you provide will help the UK formulate its position when replying to the Commission.

For information, below is the link for the 2012/13 annual report of the UK National reference Laboratory for the microbiological testing of milk and milk products which gives some information on alkaline phosphatase activity in UK produced bovine milk cheeses:

<https://www.afbini.gov.uk/sites/afbini.gov.uk/files/publications/%5Bcurrent-domain%3Amachine-name%5D/Annual%20Report%20Milk%20NRL%202012-13.pdf>

EU proposals:



Point 4 limits ALP in
853.docx



Point 4 limits ALP
Annex.docx



Point 3 testing
methods milk 2074.doc



Point 3 testing
methods milk Annex.c

The FSA would be grateful for responses by 10 May. We apologise for the short time provided. Please send responses to: foodhygiene.policy@foodstandards.gsi.gov.uk

Yours sincerely,

Narriman Looch

Food Hygiene Policy Branch

Food Policy

Food Standards Agency