QCL DAIRY SCIENCE

ADVANCED INSTRUMENTS

Pasteurisation Verification ALP Limits

EU Commission Amendments to the Determination of Alkaline Phosphatase for Heat Treated Milk

EU Commission amendments to the determination of Alkaline Phosphatase for heat treated milk. 500 mU/l was the legal limit of Alkaline Phosphatase for heat treated milk as it reflects the limit of detection of the older methods (EC Official method 91/180/EEC, Aschaffenburg & Mullen and Scharer tests) and equates to approximately 0.1% raw milk contamination. More sensitive techniques (Fluorophos Assay) can detect down to 0.003% contamination.

Lowering the potential raw milk contamination level in pasteurised dairy products will reduce the risks to public health. Correctly pasteurised milk will typically report an ALP level of less than 50 mU/l. Small changes to the base value of ALP indicate perhaps when remedial action needs to be taken on the pasteuriser or alternatively indicates microbial contamination, sometimes post pasteurisation.

QCL maintain close contacts with Environmental Health who offer advice and courses on pasteurisation to include interpretation of ALP readings and who are updating their documentation/policies in the light of regulatory changes.

The EU Commission has specified that the Fluorimetric method (Fluorophos Assay) is now the official EU reference method for ALP determination in heat-treated milk, replacing earlier colorimetric methods, as of May 2007. Any other method used for determining ALP must be validated against the Fluorimetric method for equivalent performance in accordance with internationally accepted protocols.

In the UK, performance of a chemi-luminescent based test can be seen continually to show significantly inferior performance through the proficiency schemes run by Quality Management.

The Fluorophos Assay is the EU, and by default the UK reference method and approved by the International Dairy Federation (IDF 155), the International Standards Organisation, (ISO 11816-1), and CEN European Standards Organisation.

The amendments were adopted on the 6 of November 2006. All member states had until May 2007 to introduce and enforce the new regulations.

QCL is the exclusive distributor for the Fluorophos Assay in the UK and supports all Fluorophos users through extensive training, support and quality assurance. With the vast majority of large dairies in the UK using Fluorophos we are highly experienced in supporting the system from service, application and interpretation perspectives.

A number of UK analytical food contract laboratories offer the Fluorophos assay as a part of their service to smaller processors. Whilst the most effective option is to use Fluorophos as a positive release test for good pasteurisation, an alternative would be to submit samples on a regular basis for analysis to approved laboratories.

FOR MORE INFORMATION CONTACT:

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