

Human hair? You cannot be serious

WE LOOK AT LEGISLATION GOVERNING THE SOURCE OF AMINO ACID CYSTEINE

Cysteine is a naturally occurring amino acid which is used in bakery products, as a dough conditioning agent, and to produce meat flavours for use in products such as chicken stock cubes.

In bread making, cysteine is used as a reducing agent which means that it serves to encourage the development of gluten, shortening mixing times and decreasing the amount of energy input required for the process.

Cysteine can also soften gluten where desired (as in biscuit dough) or can be used in conjunction with a slow acting oxidiser, again to reduce mixing time or create no time mixes. Using cysteine in baking dough has a number of advantages, including reduced mixing time for flour dough, easier rolling and sheeting, and reduced viscosity of dough.

Cysteine is used in bagels, croissants, pasta products, doughnuts, pitta bread and some crackers. In the body cysteine is required to produce glutathione, one of the most important and powerful antioxidants.

Cysteine can come from a synthetic source. Commercial producers Ajinomoto, for example, produce pure synthetic cysteine which is of non-human and non-animal origin making it safe, reliable and widely acceptable for food manufacturing applications.

But it can also come from human and animal sources. Ichiro Nishikura, sales and marketing manager, Amino Acids Department, Ajinomoto Europe Sales, told *Bake and Take* that at present more than 80% of the cysteine on the market worldwide is produced in China where it is extracted from human hair. Although some suppliers in China have claimed that their cysteine is synthetic, says Mr Nishikura, analysis has shown these claims to be untrue. Furthermore, he added, cysteine sold in Europe by some traders is frequently claimed as synthetic, although tests have shown that it too, is extracted from human hair.

Legislative changes

In October 2000, the EU issued directive 2000/63/EC

superseding previous legislation laying down specific purity criteria for particular food additives. Commission Directive 2000/63/EC requires food manufacturers to eliminate cysteine derived from human hair from their products.

Each of the EU member states was required to implement this directive by 31 March 2001 so the new regulations should now have taken effect. For example, the Food Standards Agency in the UK has confirmed that the directive became effective on 30 March 2001.

According to Mr Nishikura, many smaller and medium sized bakeries may be unaware of this development and of the primitive production methods employed by Chinese producers. Our advice at *Bake and Take* is if you are using cysteine, check very thoroughly. Products put on the market or labelled before March 31 2001 which do not comply with this Directive may be marketed until stocks are exhausted - but if it was put on the market after this date, it has to comply.

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