

EUTECA DECISION-TREE

How to distinguish between Caramel Colour I/E150a¹ (food additive colour) and Burnt Sugar² (aromatic foodstuff)

The purpose of this decision-tree, which was agreed by EUTECA members at the General Assembly in October 2010, revised with updated legal references in December 2015 and in December 2017, is to distinguish the food additive colour “plain caramel” (E150a) and aromatic foodstuffs (Burnt sugars) by a simple yes/no decision cascade. The tree should increase legal certainty regarding that decision for the manufacturer/marketer of the material and for those food producers, who use the material primarily as an ingredient to colour (food colour additive) or to give primarily taste to a certain composed food.

For labelling purposes, we refer to the provisions of the general food law and – if applicable specifically, but not exclusively – the EU Regulation 1169/2011 on the provision of food information to consumers³.

¹ In the European Union, class I caramel colour (E 150a), also known as “plain caramel” must comply with the specifications provided in the EU Regulation 231/2012 laying down specifications for food additives listed in Annexes II and III to Regulation (EC) No 1333/2008 (<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0231>). These specifications include information to adequately identify this food additive, such as the colour intensity (defined as the absorbance of a 0,1 % (w/v) solution of caramel colour solids in water in a 1 cm cell at 610 nm). The Regulation 231/2012 sets a colour intensity between 0,01-0,12 for caramel colour E150a.

² ‘Burnt sugar’ is a light to dark brown liquid or solid which is obtained from controlled heating of **sugars** and which is used primarily for flavouring and/or sweetening; a product used primarily for colouring shall be labelled as “Plain Caramel” or “E 150a”. Commonly, the colouring capacity of the products is up to around 16.000 EBC. The manufacturer of the finished foodstuff should decide which purpose, colouring or flavouring, this product serves in the foodstuff. Other terms historically used to describe this material include ‘Caramelized Sugar’, ‘Caramelized Syrup’, or ‘Aromatic Sugar’. Burnt sugar is sold under other denominations in various countries, including (non-exhaustive list):
in France: caramel aromatique, or caramel; caramel menagère, caramel pâtissier
in Germany: Karamell, Karamellzuckersirup;
in Italy: caramello, zucchero caramellato;
in Spain and Portugal: caramelo, caramelo aromático;
in Greece: aromatiki karamela.

³ Regulation 1169/2011 (<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32011R1169&from=EN>)

Article 7 - Fair information practices

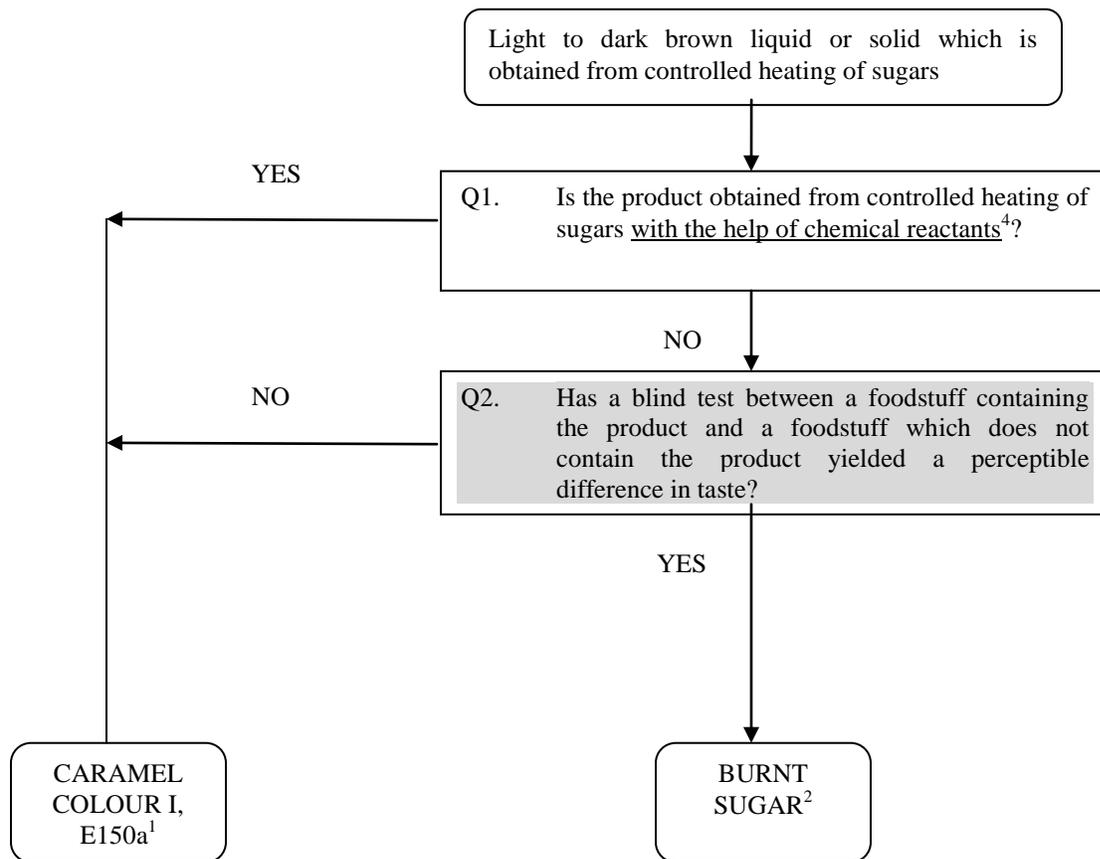
1. Food information shall not be misleading, particularly:

- (a) as to the characteristics of the food and, in particular, as to its nature, identity, properties, composition, quantity, durability, country of origin or place of provenance, method of manufacture or production;*
- (b) by attributing to the food effects or properties which it does not possess;*
- (c) by suggesting that the food possesses special characteristics when in fact all similar foods possess such characteristics, in particular by specifically emphasising the presence or absence of certain ingredients and/or nutrients;*
- (d) by suggesting, by means of the appearance, the description or pictorial representations, the presence of a particular food or an ingredient, while in reality a component naturally present or an ingredient normally used in that food has been substituted with a different component or a different ingredient.*

Annex VII – Part C - DESIGNATION OF CERTAIN INGREDIENTS BY THE NAME OF THEIR CATEGORY FOLLOWED BY THEIR SPECIFIC NAME OR E NUMBER

Without prejudice to Article 21, food additives and food enzymes other than those specified in point (b) of Article 20 belonging to one of the categories listed in this Part must be designated by the name of that category, followed by their specific name or, if appropriate, E number. If an ingredient belongs to more than one of the categories, the category appropriate to the principal function in the case of the food in question shall be indicated.

Question 2 in the decision-tree is the section where we suggest manufacturers or customers may do a taste test to determine whether the addition of material caused a taste difference, and hence can help differentiate what the material is. To help achieve consistency in this taste test, we suggest that either the ISO standard: ISO 4120:2004 “Sensory analysis – Methodology – Triangle Test”⁴ or another well established triangular test standard of equivalent quality (carried out according to Good Laboratory Practice), should be employed to help determine if there is indeed a taste difference. Such test standards should describe a procedure for determining whether a perceptible sensory difference or similarity exists between samples of two products. They should outline test conditions and requirements, procedure, analysis and interpretation of results. This consistency of method should help manufacturers or customers at Question 2 stage.



4 http://www.iso.org/iso/catalogue_detail?csnumber=33495

4. Chemical reactants include permitted food-grade acids, alkalis, and salts employed to assist caramelization but do not include adjustment by food-grade acids or alkalis after controlled heating. In France small quantities of organic acids can be added during the process of production of burnt sugars in order to promote the hydrolysis of sugar (AFNOR Standard NF V 00-100).