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COMMISSION DIRECTIVE 95/45/EC

of 26 July 1995

laying down specific purity criteria concerning colours for use in foodstuffs

(Text with EEA relevance)

(OJ L 226, 22.9.1995, p. 1)

Amended by:

	Official Journal		
	No	page	date
► <u>M1</u> Commission Directive 1999/75/EC of 22 July 1999	L 206	19	5.8.1999
► <u>M2</u> Commission Directive 2001/50/EC of 3 July 2001	L 190	14	12.7.2001
► <u>M3</u> Commission Directive 2004/47/EC of 16 April 2004	L 113	24	20.4.2004



COMMISSION DIRECTIVE 95/45/EC
of 26 July 1995

laying down specific purity criteria concerning colours for use in foodstuffs

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 89/107/EEC of 21 December 1988 on the approximation of the laws of the Member States concerning food additives authorized for use in foodstuffs intended for human consumption⁽¹⁾, as last amended by Directive 94/34/EC⁽²⁾, and in particular Article 3 (3) (a) thereof,

After consulting the Scientific Committee for Food,

Whereas it is necessary to establish purity criteria for all colours mentioned in European Parliament and Council Directive 94/36/EC of 30 June 1994 on colours for use in foodstuffs⁽³⁾;

Whereas it is necessary to revise the purity criteria for colours mentioned in the Council Directive of 23 October 1962 on the approximation of the rules of the Member States concerning the colouring matters authorized for use in foodstuffs intended for human consumption⁽⁴⁾, as last amended by Directive 85/7/EEC⁽⁵⁾;

Whereas it is necessary to take into account the specifications and analytical techniques for colours as set out in the Codex Alimentarius and the Joint FAO/WHO Expert Committee on Food Additives (JECFA);

Whereas food additives, prepared by production methods or starting materials significantly different from those included in the evaluation of the Scientific Committee for Food, or different from those mentioned in this Directive, shall be submitted for evaluation by the Scientific Committee for Food for the purposes of a full evaluation with emphasis on the purity criteria;

Whereas the measures provided for in this Directive are in accordance with the opinion of the Standing Committee on Foodstuffs,

HAS ADOPTED THIS DIRECTIVE:

Article 1

The purity criteria referred to in Article 3 (3) (a) of Directive 89/107/EEC for colours mentioned in Directive 94/36/EC are set out in the Annex hereto.

Article 8 and Annex III to the Directive of 23 October 1962 are hereby deleted.

Article 2

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than 1 July 1996. They shall immediately inform the Commission thereof.

When Member States adopt these provisions, they shall contain a reference to this Directive or shall be accompanied by such reference at

⁽¹⁾ OJ No L 40, 11. 2. 1989, p. 27.

⁽²⁾ OJ No L 237, 10. 9. 1994, p. 1.

⁽³⁾ OJ No L 237, 10. 9. 1994, p. 13.

⁽⁴⁾ OJ No 115, 11. 11. 1962, p. 2645/62.

⁽⁵⁾ OJ No L 2, 3. 1. 1985, p. 22.

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the time of their official publication. The procedure for such reference shall be adopted by Member States.

2. Products put on the market or labelled before 1 July 1996 which do not comply with this Directive may, however, be marketed until stocks are exhausted.

Article 3

This Directive shall enter into force on the third day following that of its publication in the *Official Journal of the European Communities*.

Article 4

This Directive is addressed to the Member States.

▼ **B**

Heavy metals (as Pb)	Not more than 40 mg/kg
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E 150a PLAIN CARAMEL**Definition**

Plain caramel is prepared by the controlled heat treatment of carbohydrates (commercially available food grade nutritive sweeteners which are the monomers glucose and fructose and/or polymers thereof, e.g. glucose syrups, sucrose, and/or invert syrups, and dextrose). To promote caramelization, acids, alkalis and salts may be employed, with the exception of ammonium compounds and sulphites.

Einesc	232-435-9
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Description

	Dark brown to black liquids or solids
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Purity

Colour bound by DEAE cellulose	Not more than 50 %
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Colour bound by phosphoryl cellulose	Not more than 50 %
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Colour intensity ⁽¹⁾	0,01—0,12
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Total nitrogen	Not more than 0,1 %
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Total sulphur	Not more than 0,2 %
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Arsenic	Not more than 1 mg/kg
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Lead	Not more than 2 mg/kg
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Mercury	Not more than 1 mg/kg
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Cadmium	Not more than 1 mg/kg
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Heavy metals (as Pb)	Not more than 25 mg/kg
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⁽¹⁾ Colour intensity is 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.

E 150b CAUSTIC SULPHITE CARAMEL**Definition**

Caustic sulphite caramel is prepared by the controlled heat treatment of carbohydrates (commercially available food grade nutritive sweeteners which are the monomers glucose and fructose and/or polymers thereof, e.g. glucose syrups, sucrose, and/or invert syrups, and dextrose) with or without acids or alkalis, in the presence of sulphite compounds (sulphurous acid, potassium sulphite, potassium bisulphite, sodium sulphite and sodium bisulphite); no ammonium compounds are used.

Einesc	232-435-9
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Description

	Dark brown to black liquids or solids
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Purity

Colour bound by DEAE cellulose	More than 50 %
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Colour intensity ⁽¹⁾	0,05—0,13
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Total nitrogen	Not more than 0,3 % ⁽²⁾
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Sulphur dioxide	Not more than 0,2 % ⁽²⁾
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Total sulphur	0,3—3,5 % ⁽²⁾
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Sulphur bound by DEAE cellulose	More than 40 %
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Absorbance ratio of colour bound by DEAE cellulose	19—34
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Absorbance ratio	Greater than 50
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(A 280/560)	
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Arsenic	Not more than 1 mg/kg
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Lead	Not more than 2 mg/kg
Mercury	Not more than 1 mg/kg
Cadmium	Not more than 1 mg/kg
Heavy metals (as Pb)	Not more than 25 mg/kg

(¹) Colour intensity is 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.
(²) Expressed on equivalent colour basis i.e. is expressed in terms of a product having a colour intensity of 0,1 absorbance units.

E 150c AMMONIA CARMEL

Definition	Ammonia caramel is prepared by the controlled heat treatment of carbohydrates (commercially available food grade nutritive sweeteners which are the monomers glucose and fructose and/or polymers thereof, e.g. glucose syrups, sucrose, and/or invert syrups, and dextrose) with or without acids or alkalis, in the presence of ammonium compounds (ammonium hydroxide, ammonium carbonate, ammonium hydrogen carbonate and ammonium phosphate); no sulphite compounds are used.
Einecs	232-435-9
Description	Dark brown to black liquids or solids
Purity	
Colour bound by DEAE cellulose	Not more than 50 %
Colour bound by phosphoryl cellulose	More than 50 %
Colour intensity (¹)	0,08—0,36
Ammoniacal nitrogen	Not more than 0,3 % (²)
4-methylimidazole	Not more than 250 mg/kg (²)
2-acetyl-4-tetrahydroxy-butylimidazole	Not more than 10 mg/kg (²)
Total sulphur	Not more than 0,2 % (²)
Total nitrogen	0,7—3,3 % (²)
Absorbance ratio of colour bound by phosphoryl cellulose	13—35
Arsenic	Not more than 1 mg/kg
Lead	Not more than 2 mg/kg
Mercury	Not more than 1 mg/kg
Cadmium	Not more than 1 mg/kg
Heavy metals (as Pb)	Not more than 25 mg/kg

(¹) Colour intensity is 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.
(²) Expressed on equivalent colour basis i.e. is expressed in terms of a product having a colour intensity of 0,1 absorbance units.

E 150d SULPHITE AMMONIA CARMEL

Definition	Sulphite ammonia caramel is prepared by the controlled heat treatment of carbohydrates (commercially available food grade nutritive sweeteners which are the monomers glucose and fructose and/or polymers thereof (e.g. glucose syrups, sucrose, and/or invert syrups, and dextrose) with or without acids or alkalis in the presence of both sulphite and ammonium compounds (sulphurous acid, potassium sulphite, potassium bisulphite, sodium sulphite, sodium bisulphite, ammonium hydroxide, ammonium carbonate, ammonium hydrogen carbonate, ammonium phosphate, ammonium sulphate, ammonium sulphite and ammonium hydrogen sulphite).
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Einecs	232-435-9
Description	Dark brown to black liquids or solids
Purity	
Colour bound by DEAE cellulose	More than 50 %
Colour intensity ⁽¹⁾	0,10—0,60
Ammoniacal nitrogen	Not more than 0,6 % ⁽²⁾
Sulphur dioxide	Not more than 0,2 % ⁽²⁾
4-methylimidazole	Not more than 250 mg/kg ⁽²⁾
Total nitrogen	0,3—1,7 % ⁽²⁾
Total sulphur	0,8—2,5 % ⁽²⁾
Nitrogen/sulphur ratio of alcohol precipitate	0,7—2,7
Absorbance ratio of alcohol precipitate ⁽³⁾	8—14
Absorbance ratio ($A_{280/560}$)	Not more than 50
Arsenic	Not more than 1 mg/kg
Lead	Not more than 2 mg/kg
Mercury	Not more than 1 mg/kg
Cadmium	Not more than 1 mg/kg
Heavy metals (as Pb)	Not more than 25 mg/kg

⁽¹⁾ Colour intensity is 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.

⁽²⁾ Expressed on equivalent colour basis i.e. is expressed in terms of a product having a colour intensity of 0,1 absorbance units.

⁽³⁾ Absorbance ratio of alcohol precipitate is defined as the absorbance of the precipitate at 280 nm divided by the absorbance at 560 nm (1 cm cell).

E 151 BRILLIANT BLACK BN, BLACK PN

Synonyms	CI Food Black 1
Definition	Brilliant Black BN consists essentially of tetrasodium-4-acetamido-5-hydroxy-6-[7-sulfonato-4-(4-sulfonatophenylazo)-1-naphthylazo] naphthalene-1,7-disulfonate and subsidiary colouring matters together with sodium chloride and/or sodium sulfate as the principal uncoloured components. Brilliant Black BN is described as the sodium salt. The calcium and the potassium salt are also permitted.
Class	Bisazo
Colour Index No	28440
Einecs	219-746-5
Chemical names	Tetrasodium 4-acetamido-5-hydroxy-6-[7-sulfonato-4-(4-sulfonatophenylazo)-1-naphthylazo] naphthalene-1,7-disulfonate
Chemical formula	$C_{28}H_{17}N_5Na_4O_{14}S_4$
Molecular weight	867,69
Assay	Content not less than 80 % total colouring matters calculated as the sodium salt $E_{1\text{ cm}}^{1\%}$ 530 at ca 570 nm in solution
Description	Black powder or granules
Identification	
A. Spectrometry	Maximum in water at ca 570 nm