

L.N. 216 of 2004

**FOOD SAFETY ACT
(CAP. 449)**

Colours (Use in Foodstuffs) (Amendment) Regulations, 2004

IN exercise of the powers conferred by article 10 of the Food Safety Act, the Minister of Health, the Elderly and Community Care has made the following regulations:

Citation.

L.N. 107 of 1995.

1. The title of these regulations is the Colours (Use in Foodstuffs) (Amendment) Regulations, 2004, and they shall be read and construed as one with the Colours (Use in Foodstuffs) Regulations, 1995, hereinafter referred to as “the principal regulations”.

Amends the Sixth
Schedule to the
principal
regulations.

2. In part B of the Sixth Schedule, the chapter concerning E 160a (i) Mixed Carotenes is replaced by the text of the Schedule to these regulations.

SCHEDULE

‘ E 160a (i) mixed carotenes

1. PLANT CAROTENES

Synonyms	CI Food Orange 5									
Definition	<p>Mixed carotenes are obtained by solvent extraction of natural strains of edible plants, carrots, vegetable oils, grass, alfalfa (lucerne) and nettle.</p> <p>The main colouring principle consists of carotenoids of which beta-carotene accounts for the major part. α, γ-carotene and other pigments may be present. Besides the colour pigments, this substance may contain oils, fats and waxes naturally occurring in the source material.</p> <p>Only the following solvents may be used in the extraction: acetone, methyl ethyl ketone, methanol, ethanol, propan-2-ol, hexane, dichloromethane and carbon dioxide.</p>									
Class	Carotenoid									
Colour Index No	75130									
EINECS	230-636-6									
Chemical formula	β -Carotene: $C_{40}H_{56}$									
Molecular weight	β -Carotene: 536.88									
Assay	<p>Content of carotenes (calculated as β-carotene) is not less than 5 %.</p> <p>For products obtained by extraction of vegetable oils: not less than 0.2 % in edible fats</p> <p>$E_{1cm}^{1\%}$ 2500 at ca 440 nm – 457 nm in cyclohexane</p>									
Identification										
A. Spectrometry	Maximum in cyclohexane at 440 nm – 457 nm and 470 nm – 486 nm									
Purity										
Solvent residues	<table border="1"> <tr> <td>Acetone</td><td rowspan="5">Not more than 50 mg/kg, singly or in combination</td></tr> <tr> <td>Methyl ethyl ketone</td></tr> <tr> <td>Methanol</td></tr> <tr> <td>Propan-2-ol</td></tr> <tr> <td>Hexane</td></tr> <tr> <td>Ethanol</td><td rowspan="2">Not more than 10 mg/kg</td></tr> <tr> <td>Dichloromethane</td></tr> </table>	Acetone	Not more than 50 mg/kg, singly or in combination	Methyl ethyl ketone	Methanol	Propan-2-ol	Hexane	Ethanol	Not more than 10 mg/kg	Dichloromethane
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Methyl ethyl ketone										
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Propan-2-ol										
Hexane										
Ethanol	Not more than 10 mg/kg									
Dichloromethane										

Arsenic	Not more than 3 mg/kg
Lead	Not more than 10 mg/kg
Mercury	Not more than 1 mg/kg
Cadmium	Not more than 1 mg/kg
Heavy metals (as Pb)	Not more than 40 mg/kg

2. ALGAL CAROTENES

Definition	<p>Mixed carotenes may also be produced from the algae <i>Dunaliella salina</i>, grown in large saline lakes located in Whyalla, South Australia. Beta-carotene is extracted using an essential oil. The preparation is 20-30 % suspension in soya bean oil containing natural tocopherols (up to 0,3 %). The ratio of trans-cis isomers is in the range of 50/50 – 71/29.</p> <p>The main colouring principle consists of carotenoids of which beta-carotene accounts for the major part. Alpha-carotene, lutein, zeaxanthin and beta-cryptoxanthin may be present. Besides the colour pigments, this substance may contain oils, fats and waxes naturally occurring in the source material.</p>
Class	Carotenoid
Colour Index No	75130
Assay	Content of carotenes (calculated as β -carotene) is not less than 20 %.
Identification	
A. Spectrometry	Maximum in cyclohexane at 448 nm – 457 nm and 474 nm – 486 nm
Purity	
Arsenic	Not more than 3 mg/kg
Lead	Not more than 10 mg/kg
Mercury	Not more than 1 mg/kg
Cadmium	Not more than 1 mg/kg
Heavy metals (as Pb)	Not more than 40 mg/kg