

**The Amendment of Standards for Specification, Scope, Application  
and Limitation of Food Additives**

MOHW Food No.1091304438, 25 01, 2021

**Appendix 1: Standards for Scope, Application and Limitation of Food  
Additives**

03. Antioxidants

Code	Food Additive Items	Scope and Application Standards	Limitations
03027	<u>Extracts of Rosemary</u>	<ol style="list-style-type: none"> <li>1. <u>Nut spreads, processed nuts, baked products, sauces, seasonings and condiments: not more than 200 mg/kg as the sum of carnosic acid and carnosol (expressed on fat basis).</u></li> <li>2. <u>Chewing gums and bubble gums, processed eggs and egg products, seaweed-based fish roe analogues, dehydrated potato products: not more than 200 mg/kg as the sum of carnosic acid and carnosol.</u></li> <li>3. <u>Fish and fishery products including molluscs and crustaceans with a fat content higher than 10% , meat products with a fat content higher than 10%(excluding dried sausages): not more than 150 mg/kg as the sum of carnosic acid and carnosol (expressed on fat basis).</u></li> <li>4. <u>Dried sausages,</u></li> </ol>	For <u>manufacturing or processing purpose.</u>

		<p><u>margarine and fat</u>  <u>Spreads: not more than</u>  <u>100 mg/kg as the sum of</u>  <u>carnosic acid and</u>  <u>carnosol (expressed on</u>  <u>fat basis).</u></p> <p>5. <u>Edible fat and</u>  <u>oil(excluding virgin oils,</u>  <u>olive oils and pomace</u>  <u>oil), Vegetable oil pan</u>  <u>spray, and potato-,</u>  <u>cereal- or starch-based</u>  <u>snacks: not more than</u>  <u>50 mg/kg as the sum of</u>  <u>carnosic acid and</u>  <u>carnosol (expressed on</u>  <u>fat basis).</u></p> <p>6. <u>Soups and broths: not</u>  <u>more than 50 mg/kg as</u>  <u>the sum of carnosic acid</u>  <u>and carnosol.</u></p> <p>7. <u>Dried milk for</u>  <u>manufacturing of ice</u>  <u>cream: not more than 30</u>  <u>mg/kg as the sum of</u>  <u>carnosic acid and</u>  <u>carnosol (expressed on</u>  <u>fat basis).</u></p> <p>8. <u>Food supplements</u>  <u>supplied in capsule,</u>  <u>tablet, powder and</u>  <u>liquid form for groups</u>  <u>over 3 years old: not</u>  <u>more than 400 mg/kg as</u>  <u>the sum of carnosic acid</u>  <u>and carnosol.</u></p> <p>9. <u>Fish and fishery</u>  <u>products including</u>  <u>molluscs and</u>  <u>crustaceans with a fat</u>  <u>content not higher than</u>  <u>10%, meat products</u>  <u>with a fat content not</u></p>	
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		<p><u>higher than 10% (excluding dried sausages): not more than 15 mg/kg as the sum of carnosic acid and carnosol (expressed on fat basis).</u></p> <p>10. <u>Fillings of Flour products: not more than 250 mg/kg as the sum of carnosic acid and carnosol (expressed on fat basis).</u></p>	
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#### 09. Colors

<b>Code</b>	<b>Food Additive Items</b>	<b>Scope and Application Standards</b>	<b>Limitations</b>
09022	Sodium Copper Chlorophyllin	<ol style="list-style-type: none"> <li>1. Dried seaweeds: not more than 0.15 g/kg calculated as Cu.</li> <li>2. Preserved vegetables and fruits, baked products, jams and jellies: not more than <u>0.1 g/kg</u> calculated as Cu.</li> <li>3. Flavored milk products, soups and non-alcoholic flavoured drinks: not more than 0.064 g/kg calculated as Cu.</li> <li>4. Chewing gums and bubble gums: not more than 0.05 g/kg calculated as Cu.</li> <li>5. Foods in capsule or tablet form: not more than 0.5 g/kg.</li> <li>6. <u>Candy: not more than 0.02 g/kg</u> calculated as Cu.</li> </ol>	

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## Appendix 2: Standards for Specification of Food Additives

### 03. Antioxidants

#### § 03027

#### Extracts of Rosemary

#### SYNONYMS

Extracts of Rosemary Leaf (Antioxidant)

#### DEFINITION

Extracts of rosemary contain several components, which have been proven to exert antioxidative functions. These components belong mainly to the classes of phenolic acids, flavonoids, diterpenoids. Besides the antioxidant compounds, the extracts can also contain triterpenes and organic solvent extractable material specifically defined in the following specification. Rosemary leaf extract antioxidant is prepared by extraction of the leaves of *Rosmarinus officinalis* using a food approved solvent system. Extracts may then be deodorized, decolorized and standardized.

#### Chemical names

Rosemary extract (*Rosmarinus officinalis*)

#### CHARACTERISTICS

#### IDENTIFICATION

Reference  
antioxidative  
compounds:  
phenolic  
diterpenes

: Carnosic acid(C<sub>20</sub>H<sub>28</sub>O<sub>4</sub>) and Carnosol (C<sub>20</sub>H<sub>26</sub>O<sub>4</sub>) (which comprise not less than 90% of the total phenolic diterpenes)  
Acetone extraction: not less than 10% w/w, expressed as the total of carnosic acid and carnosol  
Supercritical carbon dioxide extraction: not less than 13% w/w, expressed as the total of carnosic acid and carnosol  
Deodorized ethanolic extract: not less than 5%

	<u>w/w, expressed as the total of carnosic acid and carnosol</u>
	<u>Two-step extraction using hexane and ethanol: not less than 5% w/w, expressed as the total of carnosic acid and carnosol</u>
<u>Antioxidants/Volatiles Ratio</u>	<u>Total % of carnosic acid and carnosol / Total % of reference volatiles: (-)-borneol, (-)-bornyl acetate, (-)-camphor, 1,8-Cineole (eucalyptol) and verbenone: not less than 15</u>
<u>Density</u>	<u>not less than 0.25 g/mL</u>
<u>Solubility</u>	<u>Insoluble in water</u>
<u>Residual solvents</u>	<u>Acetone extraction: Acetone: not more than 500 mg/kg</u> <u>Supercritical carbon dioxide extraction: Ethanol: not more than 2%</u> <u>Deodorized ethanolic extract: Ethanol: not more than 500 mg/kg</u> <u>Two-step extraction using hexane and ethanol: Hexane: not more than 25 mg/kg, Ethanol: not more than 500 mg/kg</u>
<b><u>Purity</u></b>	
<u>Loss on drying</u>	<u>: Not more than 5%</u>
<u>Arsenic</u>	<u>: Not more than 3 mg/kg</u>
<u>Lead</u>	<u>: Not more than 2 mg/kg</u>
<b><u>Category</u></b>	<b><u>: Food additives category (03)</u></b>
<b><u>Functional uses</u></b>	<b><u>: Antioxidants</u></b>