



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 1886.211-2016

**National Food Safety Standard -- Food Additives -- Tea
polyphenols (also known as Victoria polyphenols)**

食品安全国家标准 食品添加剂 茶多酚（又名维多酚）

(English Translation)

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1 Scope

This standard is suitable for tea (*Camelliasinensis* L.) as raw material, extracted from catechins as the main body of polyphenols Food additives Tea polyphenols (also known as polyphenols).

2.1 Epigallocatechin gallate (EGCG)

Chemical name. (2R, 3R) -5,7-dihydroxy-2- (3,4,5-trihydroxyphenyl) benzopyran-3-yl-3,4,5-trihydroxybenzoic acid ester Molecular formula. C₂₂H₁₈O₁₁ Structure.

Relative molecular mass. 458.37 (according to 2013 International relative atomic mass)

2.2 Table epigallocatechin (EGC)

Chemical name. (2R, 3R) -2- (3,4,5-trihydroxyphenyl) benzopyran-3,5,7-triol Molecular formula. C₁₅H₁₄O₇ Structure.

Relative molecular mass. 306.27 (according to 2013 International relative atomic mass)

2.3 Epicatechin gallate (ECG)

Chemical name. (2R, 3R) -2- (3,4-dihydroxyphenyl) -5,7-dihydroxybenzopyran-3-yl-3,4,5-trihydroxybenzoate Molecular formula. C₂₂H₁₈O₁₀ Structure.

Relative molecular mass. 442.37 (according to 2013 International relative atomic mass)

2.4 Table catechins (EC)

Chemical name. (2R, 3R) -2- (3,4-dihydroxyphenyl) benzopyran-3,5,7-triol Molecular formula. C₁₅H₁₄O₆ Structure.

Relative molecular mass. 290.27 (according to 2013 International relative atomic mass)

2.5 Catechins (C)

Chemical name. (2R, 3S) -2- (3,4-dihydroxyphenyl) benzopyran-3,5,7-triol Molecular formula. C₁₅H₁₄O₆ Structure.

Relative molecular mass. 290.27 (according to 2013 International relative atomic mass)

3.1 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

Table 1 sensory requirements

The project requires a test method Color pale yellow to light brown or brown State powder or paste Take the appropriate sample in a 50 mL dry beaker and observe the color and tissue under natural light status

3.2 Physical and chemical indicators

Physical and chemical indicators should be consistent with the provisions of Table 2.

Table 2 Physical and chemical indicators a

Item Index Test Method Tea polyphenols, w /% compliance claims GB/T 31740.2 Catechins, w /% compliance claims GB/T 31740.2 Epigallocatechin gallate, w /% consistent with claims GB/T 31740.2 Caffeine, w /% compliance claim GB/T 31740.2 Total ash, w /% ≤ 3.0 GB/T 8306 Moisture b, w /% ≤ 6.0 GB 5009.3 Direct drying method Total arsenic (in As)/(mg/kg) ≤ 2.0 GB 5009.11 Lead (Pb)/(mg/kg) ≤ 5.0 GB 5009.12 a commercial tea polyphenols should be in accordance with the standards of tea polyphenols as raw materials, can be added for processing, storage, standardization, dissolution and other purposes of edible plants Oil and/or meet the quality requirements of food additives, emulsifier, anti-agent and so on.

b only for powder products.