

Eco-mark Scheme

ECOMARK CRITERIA FOR FOOD ADDITIVES (The Gazette of India, Extraordinary, Part II-Section 3(i), No. 170, May 18, 1996)

GENERAL REQUIREMENTS :

- All the food additives mentioned below shall meet the relevant standards of BIS.

S. No.	Items
1.	Acetic Acid Glacial
2.	Vinegar
3.	Sodium benzoate
4.	Citric acid
5.	Sodium metabisulphite
6.	Potassium metabisulphite
7.	Sodium bicarbonate & Sodium Carbonate
8.	Natural Colourants : Caramel
9.	Baking Powder.

- The product manufacturer must produce the consent clearance, as per the provisions of Water (Prevention and Control of Pollution) Act 1974, Water (Prevention and Control of Pollution) Cess Act 1977 and Air (Pollution and Control of Pollution) Act 1981 along with the authorisation if required under Environment (Protection) Act 1986 and rules made thereunder to Bureau of Indian Standards while applying for the ECOMARK and the product shall also be in accordance with the Prevention of Food Adulteration Act 1954 and the rules made thereunder.
- The product packaging may display in brief the criteria based on which the product has been labelled Environment Friendly.
- The material used for product packaging shall be recyclable or

- biodegradable
- The date of manufacture and date of expiry shall be declared on the product package by the manufacturer.
- The product package or leaflet accompanying it may display instructions of proper use and storage so as to maximise the product performance, safety and minimise wastage.

PRODUCT SPECIFIC REQUIREMENTS :

Acetic Acid, Glacial : It shall conform with the following standards:

Assay : Not less than 99.5 percent, by weight, of $C_2H_4O_2$.

Arsenic : Not more than 1.5 ppm Heavy Metals (as Pb) : Not more than 10 ppm
Non-volatile Residue : Not more than 0.005 percent

Vinegar : Vinegar shall conform with the following standards

It shall contain at least 3.75 grammes of acetic acid per 100 ml

It shall contain at least 1.5 percent w/v of total solids 0.18 percent of ash

It shall not contain (i) any mineral acid (ii) lead and copper (iii) arsenic in amounts exceeding 1.5 parts per million, and (iv) any foreign substances of colouring matter except caramel.

Malt vinegar, in addition, shall have atleast 0.05

percent of phosphorus pentoxide (P_2O_5) and 0.04 percent of nitrogen.

Note: Brewed vinegar shall not be fortified with acetic acid.

Sodium Benzoate : It shall conform with the following standards

Assay : Not less than 99.5 percent of $C_2H_5NaO_2$ calculated on the dry basis

Arsenic : Not more than 1.5 ppm

Heavy Metals (as Pb) : Not more than 10 ppm.

Moisture : Not more than 1.5 percent.

Citric Acid : It shall conform with the following standards :

Assay : Minimum 99.5 percent by weight of Citric Acid.

Water Insoluble matter : Not more than 30 ppm.

Sulphated ash : Not more than 100 ppm.

Chloride (as Cl) : Not more than 5 ppm.

Phosphate (as P_2O_5) : Not more than 5 ppm.

Calcium : Not more than 25 ppm.

Heavy metals (as Pb) : Not more than 10 ppm.

Tridodecyclamine : Not more than 0.1 ppm

Sodium Metabisulphite : It shall conform with the following standards

Assay : Not less than 95.0 percent by weight of $Na_2S_2O_5$.

Arsenic : Not more than 1.5 ppm.

Heavy Metals (as Pb) : Not more than 10 ppm.

Iron : Not more than 5 ppm.

Selenium : Not more than 10 ppm.

Potassium Metabisulphite : It shall conform with the following standards :

Assay : Not less than 95.0 percent by weight of $K_2S_2O_5$

Arsenic : Not more than 1.5 ppm

Heavy Metals (as Pb) : Not more than 10 ppm.

Iron : Not more than 5 ppm.

Selenium : Not more than 10 ppm.

Sodium Bicarbonate : It shall conform with the following standards

Assay : Not less than 99 percent by weight $NaHCO_3$

Ammonium Compound as NH₄ : Nil Arsenic : Not more than 1.5 ppm.

Heavy Metals (as Pb) : Not more than 10 ppm

Natural Colorants : Caramel
Baking Powder :

- The product shall comply with the relevant Indian Standards and with the General Requirements prescribed under Clause - 1 for consideration of Ecomark.
- Caramel Colours : These shall conform to IS 4467:1994 with the following additional standards

Caramel Colour	(Plain & Caustic Sulphate)
(i) Sulphur dioxide	: 0.1 percent
(ii) 4-Mehtylimidazole	: Not detectable using TLC method sensitive to 25 ppm + 20 percent
- Caramel Colour (Ammonia & Ammonia Sulphite)

(i) Sulphur dioxide	: 0.1 percent.
(ii) 4-Methylimidazole	: 200 percent.

The product shall comply with the relevant Indian Standards and with the General Requirements prescribed under Clause - 1 for consideration of Ecomark.

Note: The limit of Heavy Metals (as Pb) given in clauses 2.1(c), 2.3(c), 2.4(g), 2.5(c), 2.6(c) and 2.7(d) includes nine metals namely : Ag, As, Bi, Cd, Cu, Hg, Pb, Sb and Sn when tested as per method given in Food Chemical Codex : 1981, III Edition, Method No. II on page No. 512-513.

The incorporation of the Ecomark requirements, in the following BIS standards, are under process :

1.	IS 695:1980	Acetic acid
2.	IS 1159:1981	Baking powder
3.	IS 2124:1974	Sodium bicarbonate
4.	IS 4447:1965	Sodium benzoate
5.	IS 4751:1994	Potassium metabisulphite (food grade)
6.	IS 4752:1994	Sodium metabisulphite (food grade)
7.	IS 5404:1984	Citric acid
8.	Standard Preparation	Under Vinegar