

Ecomark Criteria for Food Additives

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%, 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%

Vinegar: Vinegar shall conform to the following standards

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

It shall contain at least 1.5% w/v of total solids 0.18% 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 at least 0.05% of phosphorus pentoxide (P_2O_5) and 0.04% of nitrogen.

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

Sodium Benzoate: It shall conform to the following standards

Assay: Not less than 99.5% of $C_6H_5NaO_2$ 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%.

Citric Acid: It shall conform to the following standards:

Assay: Minimum 99.5% 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 to the following standards

Assay: Not less than 95.0% 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 to the following standards:

Assay: Not less than 95.0% 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 to the following standards

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

Ammonium Compound as NH_4 : 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%
 - (ii) 4-Mehtylimidazole: Not detectable using TLC method sensitive to 25 ppm + 20%
- Caramel Colour (Ammonia & Ammonia Sulphite)
 - (i) Sulphur dioxide: 0.15%
 - (ii) 4-Methylimidazol: 200%

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, 3rd Edition, Method No. II on page No. 512-513.

The Ecomark requirements, in the following BIS standards, are incorporated:

Indian Standards	Year of Incorporation	Descriptions
IS 1159:1981 Reaffirmed Year 2010	1996	Baking powder
IS 2124:2000 Reaffirmed Year 2010	1996	Sodium bicarbonate
IS 4447:1994 Reaffirmed Year 2008	2005	Sodium benzoate
IS 4752:1994 Reaffirmed Year 2008	2005	Sodium metabisulphite (food grade)
IS 13186: 1991 Reaffirmed Year 2008	2010	Citric acid (food Grade)
IS 14703:1999 Reaffirmed Year 2009	1999	Vinegar

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

Indian Standards	Year of Incorporation	Descriptions
IS 695:1986 Reaffirmed Year 2008	-	Acetic acid
IS 4751:1994 Reaffirmed Year 2008	-	Potassium metabisulphite (food grade)

Source: <http://cpcb.nic.in/EnvironmentPlanning/Eco-label/additives.pdf>