

Eco-mark Scheme

ECOMARK CRITERIA FOR FIRE-EXTINGUISHERS
(The Gazette of India, Extraordinary, Part II-Section 3(i), No.
160, April 1, 1999)

GENERAL REQUIREMENTS :

Any fire extinguisher having BIS standard mark qualifies for consideration of Ecomark. Following are the BIS Standards for portable and mobile fire extinguishers :

IS 940:1989	Portable Fire Extinguishers Water Type (Gas Cartridge)
IS 2171:1985	Portable Fire Extinguishers Dry Powder Type (Cartridge)
IS 2878:1986	Fire Extinguishers Carbon Dioxide Type (Portable and Trolley - Mounted)
IS 6234:1986	Portable Fire Extinguishers Water Type (Stored Pressure)
IS 10204:1982	Portable Fire Extinguishers Mechanical Foam Type
IS 10658:1983	Higher Capacity Dry Powder Fire Extinguishers (Trolley-Mounted)
IS 11833:1986	Dry Powder Fire Extinguishers for Metal Fires
IS 13385:1992	Specifications for Fire Extinguishers 50 litre Wheel-Mounted Water type (Gas Cartridge)
IS 13386:1992	Specifications for Fire Extinguishers 50 litre Mechanical Foam Type
IS 13849:1993	Portable Fire Extinguishers Dry Powder Type (Constant Pressure)

The product manufacturer must produce the consent clearance as per provision of the Water (Prevention & Control of Pollution) Act, 1974, Water (Prevention & Control of Pollution) Cess Act, 1977 and Air (Prevention & Control of Pollution) Act, 1981, respectively, along with authorisation if required under Environment (Protection) Act, 1986, and the rules made thereunder to the Bureau of Indian Standards while applying for Ecomark.

The product may display in brief the criteria based on which the product has been awarded Ecomark.

The product may be sold along with instructions for proper use so as to maximise product performance with statutory warning, if any, minimise waste and method of safe disposal.

The material used for product packaging (excluding refills) shall be recyclable, reusable or biodegradable.

The product must display a list of critical ingredients in descending order of quantity present in percent by weight. The list of such critical ingredients shall be identified by the Bureau of Indian Standards.

PRODUCT SPECIFIC REQUIREMENTS :

The fire extinguishers shall not contain any Ozone Depleting Substance (ODS) relevant to fire extinguishers industry as identified under the Montreal Protocol (Annexure A).

Gas-based extinguishing media once discharged in the atmosphere should not have atmospheric life time of more than a year (Annexure B).

Chemicals used should not have global warming potential (Annexure C).

The metallic body and other metal parts of the fire extinguishers shall be free of lead or lead alloys.

The coatings used for the metallic part shall not be formulated with mercury and mercury compounds or be tinted with pigments of lead, cadmium, chromium VI and their oxides. Excluded are natural impurities or impurities entailed by the production process up-to the amount of 0.1 percent by weight which are contained in the raw material.

Note: CO₂ extinguishers may be permitted till suitable substitutes are available.

Annexure A

**LIST OF OZONE DEPLETING SUBSTANCES (ODS)
CONTROLLED BY MONTREAL PROTOCOL**

Trade Name	ODP
Halon 1211	3.0

Halon 1211	3.0
Halon 1301	10.0
Halon 2402	6.0
CFC-11	1.0
CFC-12	1.0
CFC-113	0.8
CFC-114	1.0
CFC-115	0.6
CCI 4	1.1
C 2 H 3 C 13	0.1
CFC-13	1.0
CFC-111	1.0
CFC-112	1.0
CFC-211	1.0
CFC-212	1.0
CFC-213	1.0
CFC-214	1.0
CFC-215	1.0
CFC-216	1.0
CFC-217	1.0
Methyl Bromide	0.6

Note: ODP values are relative to CFC-11 which has been assigned arbitrary value of 1.0

1.	4-Aminodiphenyl
2.	Benzidine
3.	4-Chloro-o-toluidine
4.	2-Naphthylamine
5.	p-Chloraniline
6.	2,4-Diaminoanisole
7.	4,4-Diaminodiphenylmethane

8.	3,3-Dichlorobenzidine
9.	3,3-Dimethoxy-benzidine
10.	3,3-Dimethylbenzidine
11.	3,3-Dimethyl-4,4-diaminodiphenylmethane
12.	p-Cresidin (2-Methoxy 5-methylaniline)
13.	4,4-Methylene-bis (2-chloraniline)
14.	4,4-Oxydianiline
15.	4,4-Thiodianiline
16.	o-Toluidine
17.	2,4-Toluendiamine
18.	2,4,5-Trimethylaniline

APPENDIX -C

LIST OF SUBSTANCES HAVING GLOBAL WARMING POTENTIAL (GWP)

Trade Name	GWP (100 years) Vs CO 2
Halon 1301	5600
Inergen	-
Argonite	-
Argon	-
CEA 410	5500
FM 200	3300
FE 13	12100
FE 36	8000
FE 241	480
FE 25	3200
NAFS III	1450
CF 31	5

Incorporation of the Ecomark requirements in the relevant BIS standards, are under process.