

GREEN CHOICE PHILIPPINES

NELP-GCP 2006008

Portable Fire Extinguishers

Carbon Dioxide, Dry Chemical, Clean Extinguishing Agent

Environmental Scenario

The key environmental impact in the life cycle of fire extinguishers is in the manufacture and discharge of the product causing pollution of soil, water and most of all the depletion of the ozone layer by halogenated hydrocarbons, Reduction of this environmental impact calls for the reduction of harmful chemicals such as carbon dioxide which causes green house effect and halogenated hydrocarbon used.

Definition of Terms:

1. Portable Fire Extinguisher

A portable appliance containing an extinguishing medium which may be discharged and directed onto a fire by the action of internal pressure; discharge may be achieved by:

- Stored pressure (constant pressurization of the extinguishing media container)
- Cartridge operated (pressurization at the time of use by the release of a pressurizing gas stored in a separate high-pressure container (cartridge)).

2. Dry Chemical-

A mixture of finely divided solid particles, usually sodium bicarbonate, potassium bicarbonate or ammonium phosphate-based with added particulate materials supplemented by special treatment to provide resistance to packing and moisture absorption (caking), and to promote proper flow characteristics.

3. Extinguishing agent or medium

A substance contained in the extinguisher that causes extinguishment.

4. Clean Extinguishing Agent

Electronically non-conductive gaseous or vaporizing extinguishing agent that does not leave a residue upon evaporation.

5. PNS 15 Part 3: 1991
Philippine National Standards for CO2 Portable Fire Extinguisher
6. PNS 15 Part 1:1989
Philippine National Standards for Dry Chemical Portable Fire Extinguisher
7. PNS 15-5:1996
Philippine National Standards for Clean Extinguishing Agent – Halon substituted Portable Fire Extinguisher
8. RA 6969
Toxic Substances, Hazardous and Nuclear Waste Control Act (Philippines, 1990)
9. DENR Administrative Order 2004 –8 : - Revised Chemical Control Order for Ozone Depleting Substances
10. US EPA SNAP list
United States Environmental Protection Agency's Significant New Alternative Policy (USA-EPA). The SNAP programme comes under section 612 of the USA Clean Air Act. List of alternatives to CFCs, halons and other ozone depleting substances approved by the US EPA. Under the US Clean Air Act, alternatives may be used if they are approved by the SNAP programme.

Scope

These criteria shall apply to portable fire extinguishers of the following types: carbon dioxide; dry chemicals and clean extinguishing types.

Green Choice Requirements

To carry the Green Choice Philippines seal, the product must meet the following requirements:

Product requirements:

1. The product shall have the required specifications as prescribed in its particular Philippine National Standards such as PNS 15 – 5 for Clean Extinguishing Agent, etc.
2. The finished dry chemical extinguishing agent shall not be manufactured using dyes and pigments containing heavy metals.
3. The production process, transport, disposal and recycling features of the product shall meet the requirements of all applicable environmental laws and regulations.

Other Requirements:

Marking and labeling: Marking and Labeling must conform with the Marking and Labeling requirements of the particular PNS of the product.

Effectivity

These product criteria shall take effect for three (3) years from the date of its approval, and subject to change or withdrawal by the *Green Choice Philippines – Ecolabelling Programme Board*, if necessary at any period of time.

Evaluation and Validation Method

1. Regarding product criteria 1, the applicant must submit the certified true copy of the compliance certificate from the Bureau of Product Standards. If further validation is required, one of the BPS accredited laboratories will test the product from the market or from the production.
2. Regarding product criteria 2, a certificate from the chemical supplier showing the safety of the dyes and pigments used shall be submitted.
3. Regarding criterion number two (3), the applicant shall submit an environmental compliance certificates from the Department of Environment and Natural Resources and other concerned government agencies. Specifically, the manufacturer shall comply with the provisions of the laws on Clean Air Act, Clean Water Act, Regulation on Hazardous and Toxic Waste Substances Act and Ecological Solid Waste Management Act.
4. Regarding Markings and Labeling, the applicant must submit a certification from BPS.

References:

1. NFPA (National Fire Protection Association) 10 - - Standard on Clean Agent Fire Standard for Portable Fire Extinguishers 2002 Edition
2. ISO/FDIS 7165:1999 – Fire fighting – Portable fire extinguishers – Performances and constructions
3. PNS 15-1:1989 – Specification for Dry Chemical Portable Fire Extinguishers

4. PNS 15-5:1996 – Clean Extinguishing agent – Halon substitute portable fire extinguishers – Specification
5. NFPA 2001 Standard on Fire Extinguishing System
6. Product Certification Criteria for “Fire Extinguishers Version 1.1” November 1,2003