



Eco Mark Product Category No.127

“Fire Extinguisher Version 1.0 ”

Japan Environment Association
Eco Mark Office

1. Environmental Background

With the growing awareness of the limits in our environment and resources, the construction of a recycling-oriented economic society for the sustainable growth of the economy comes as an urgent task. One sphere in which recycling must be promoted is fire extinguishers, as they consist of mainly a metallic container and fire extinguishing agent.

The Fire and Disaster Management Agency has been providing guidance on the recovery of fire extinguishers through fire extinguisher disposal businesses with the aim of preventing accidents resulting from aged fire extinguishers. The manufacturers of these products have also been carrying out voluntary recovery. However present recovery and recycling systems are inadequate, as indicated by a 2002 survey by the Agency, which revealed that the number of recovered fire extinguishers which could be traced was merely 1.65 million compared to the 3.5 to 4.5 million sold annually. The Agency conducted another sample survey to grasp how many years have passed since general consumers bought powder fire extinguishers or since manufactures made them. While most manufacturers provide an 8-year warranty, it has been found that more than 50% of households own fire extinguishers that are less than 5 years old. More than 20% have fire extinguishers that were made or purchased over ten years ago or those whose age is unknown. Surprisingly, more than 20% of households still own powder extinguishers that they wish to dispose of. Of this 70% responded that they did not know how to go about disposing them. For these reasons, a recovery system must be established to prevent accidents concerning fire extinguishers.

In December 1999, the Japanese government set up the Millennium Project, which is undertaken jointly by industry, academia, and government, targeting bold technical innovation that can create new industries at the start of this new millennium. Focusing on environmental efforts as an important theme as well as actions to cope with an information-driven society and growing aged population, the Project aims at the rapid establishment of a recycling-oriented society. Based on the policy, the Fire and Disaster Management Agency has also set goals to raise the reuse and recycle rate to 60% for fire extinguishers.

NOTE: This document is a translation of the criteria written in Japanese. In the event of dispute, the original document shall be taken as authoritative.

Based on this situation, a proposal on the “Use of Recycled Fire Extinguishing Agents” as a new Eco Mark category was made in 1999. This was selected by The 6th Eco Mark Category and Standard Criteria Committee and will be reviewed together with the criteria of Eco Mark category No.67, “Inert-Gas Smothering Systems and Apparatuses Using Non- Ozone Layer Depleting Gases”. This product category focuses on fire extinguishers that are eco-friendly throughout the entire life cycle in terms of effective use of recyclable materials for fire extinguishing agents, content/discharge of harmful substances, product manufacturing and disposal, recycling stage, etc.

2. Applicable Products

Of products corresponding to the ministerial ordinance prescribing technical standards of fire extinguishers issued by the Director General of Management and Coordination Agency (established in 1964), those that fall into powder (ABC) fire extinguishing devices are applicable. Aerosol type simple extinguishing devices and fire extinguishers used on ships and aircraft are excluded.

3. Terminology

- Recycled materials: Post- or pre-consumer materials, or the combination of both.
- Post-consumer materials: materials that have undergone the required pre-treatment.
- Pre-consumer materials: Materials or rejected products generated from a disposal route in a product manufacturing process, excluding those which are recycled within the same process (plant).
- Prescription constituents: Material components added for intended purpose to give any characteristics to the products. Impurities that are technically unavoidable in the manufacturing process are not included.
- Recycling: Refers to material recycling. Energy recovery (thermal recycling) is excluded.

4. Certification Criteria

4-1. Environmental criteria

- (1) The recycled material used in the fire extinguishing agent shall be 40% or more of the total of the agent by weight.
- (2) In manufacturing, related environmental laws and pollution control agreements shall be observed for atmospheric and water pollution, noise, vibration, offensive odor, discharge of hazardous substances, etc.
- (3) Products shall not contain polymers consisting of halogens and/or organic halogenides.
- (4) Packaging shall give consideration to resource saving, ease of recycling, and load reduction in incineration. The plastic materials used for packaging shall not

contain polymers consisting of halogens and/or organic halogenides.

- (5) Fire extinguishing agents shall not contain heavy metals such as lead, cadmium, copper, nickel, mercury, and zinc.
- (6) Products shall have recovery systems. Related information shall also be provided.
- (7) Fire extinguishers recovered shall be disassembled by the appropriate method, and metal parts and fire extinguishing agents shall be recycled appropriately. However, parts that cannot be recycled shall be disposed of appropriately.

4-2. Quality criteria

- (8) Quality shall conform to the ministerial ordinance prescribing technical standards of fire extinguishers issued by the Director General of Management and Coordination Agency, and this shall be labeled.

5. Certification Procedure

5-1. Certification of "4-1. Environmental Criteria"

Attached certificates and certificates indicating compliance to each criterion shall be submitted.

- (1) For Criterion 4-1.(1), the content of recycled materials in the fire extinguishing agent shall be indicated in the attached certificate. Also the raw material certificate issued by the recycled material supplier shall be attached.
- (2) For Criterion 4-1.(2), certificates issued by the manager of the plant manufacturing the product certifying that no environmental laws and regulations of the plant location have been violated for the past five years shall be submitted.

If the manufacturing plant is subject to the PRTR law, and substances (Class 1 designated chemical substance) are used at levels above that specified by law, certificates issued by the manager indicating the amount of discharge and movement for each substance shall be submitted.

- (3) For Criterion 4-1.(3), a list of materials used for the product issued by the manufacturer shall be attached.
- (4) For Criterion 4-1.(4), packaging materials shall be indicated in attached certificates.
- (5) For Criterion 4-1.(5), certificates issued by the fire extinguishing agent supplier shall be attached.
- (6) For Criterion 4-1.(6), documents describing the recovery system shall be submitted. Instruction manual (user's manual) indicating that the user can use this system easily (e.g.: recovery method at dealers, etc.) shall be submitted.
- (7) For Criterion 4-1.(7), documents describing disassembly methods, recycling systems of each material (recycling method and rate, etc.), and disposal methods for non-recyclable parts shall be submitted.

5-2. Certification of "4-2. Quality Criteria"

- (8) For Criterion 4-2.(1), attach a copy of certificate issued by the Director General of the Management and Coordination Agency.

6. Other Requirements

- (1) Product categorization shall basically be by brand name (series name): pressurized, accumulated, fire extinguishers other than those for automobiles (household, large, etc.) and automobile fire extinguisher.
- (2) The following environmental information shall be indicated in the box below the Eco Mark label. The planned location and details of such information shall also be indicated when applying for Eco Mark product certification. The environmental information indicated shall consist of two lines aligned to the left and enclosed in a rectangular box. The first line shall indicate “再生薬劑を〇〇%使用 (“Recycled chemicals XX%”)” or “再生薬劑を〇〇%以上使用 (“Recycled chemicals above XX%”)”. The second line shall indicate “回収およびリサイクルシステムを持つ (“With recovery and recycling systems”)”. XX% shall indicate the percentage of the actual recycled material used respectively (Rounded to the nearest whole number).

Be sure to indicate the certification number the Eco Mark.

The following shows an example:



Eco Mark Certification No.XXXXXXXXXX

Indication of numbers only is valid



Eco Mark Certification No.XXXXXXXXXX

Indication of numbers only is valid



Eco Mark Certification Number No.XXXXXXXXXX

Indication of numbers only is valid

- (3) The name and address of the Eco Mark user shall be indicated on the Eco Mark product or packaging/container. (Eco Mark Usage Regulations Article 7).
- (4) In principle, products to be applied shall be free of “flame retardant”, “antibacterial agent” materials and “biodegradable plastic” indication. When using these materials under special circumstances, however, the products shall satisfy the provisions contained in the “Eco Mark Business Execution Guideline” concerning “flame retardant”, “antibacterial agent” and “indication of biodegradable plastic”. Specifically, the use of these materials shall be described in the form “Application for Eco Mark Certification/Use” with documents stipulated in the form to be attached. (Quoted from “A Guide to Eco Mark”: exclusion clause corresponding to Article 3.7 of “Guidelines for Eco Mark Program Implementation ”)

Established: November 1, 2003 (Version 1.0)

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These certification criteria for the product category will be revised or abolished when deemed necessary.

The certification criteria for this product category shall be revised as appropriate.