

## Product Certification Criteria for “Recycled Soap Made of Cooking Oil Version1.0”

Established: July 1, 2004

### 1. Applicable Products

Soap products (Category No. 88 3) based on the “Standard Commodity Classification for Japan” issued by the Ministry of Public Management, Home Affairs, Posts and Telecommunications.

However, of the soap products corresponding to this category, only those made of used cooking oil that has been refined or processed into fatty acid apply, regardless of whether for household or commercial use.

### 2. Terminology

The definition of used cooking oil was established based on definitions of post-consumer materials in JIS Q 14021. The following shows JIS definitions as references:

(Reference)

Definition of JIS Q 14021 Post-Consumer Materials

Materials discharged from households or materials deteriorating into products that can no longer be used for their original purpose from commercial facilities, industrial facilities and other facilities as end users of the products. Includes materials returned from distribution channels.

Definition of JIS Q 14021 Pre-Consumer Materials

Materials removed from waste in the manufacturing process. Excludes reuse of products unsuitable for processing, products unsuitable for polishing, scraps, etc. which can be reused in the same process as these products were generated.

### 3. Environmental Criteria

#### 3-1. Details of Establishing Environmental Criteria

To establish the criteria, the environmental impact over the whole life cycle of a product was considered, using the “Chart for Selecting Items with Environmental Impact at Each Stage of Product Lifecycle.” As a result, items that were considered important due to their impact on the environment were selected to have criteria established for Eco Mark certification. For these items, qualitative or quantitative criteria were established.

The focus of items for the Product Category “Recycled Soap Made of Cooking Oil” is as shown in the “Chart for Selecting Items with Environmental Impact at

Each Stage of Product Lifecycle” (X in the Chart). Of these items, the following were finally selected as environmental criteria: A-1, B-5, B-6, B-9, C-1, and C-8 (XX in the Chart). The blank columns in the table show items that were out of the scope of review or which were reviewed in combination with other items. The following are details of establishing environmental criteria:

Table 1: Chart for Selecting Items with Environmental Impact at Each Stage of Product Lifecycle

Environmental Impact Item	Product Life Stage					
	A. Resource Extraction	B. Manufac- turing	C. Distribu- tion	D. Use/Con- sumption	E. Disposal	F. Re- cycling
1.Resource consumption	<b>XX</b>		<b>XX</b>			
2.Discharge of greenhouse gases						
3.Discharge of the ozone layer depleting substances						
4.Destruction of eco systems						
5.Discharge of atmospheric pollutants		<b>XX</b>				
6.Discharge of water pollutants		<b>XX</b>				
7.Discharge/disposal of wastes						
8.Use/discharge of hazardous materials			<b>XX</b>			
9.Other environmental impacts		<b>XX</b>		<b>X</b>		

### A Resource Extraction Stage

#### A-1 Resource consumption

The following point was reviewed under this item:

(1) Use of used cooking oil

Under the Eco Mark Program, soap products made from recycled cooking oil, which are promoted in civic activities related to environmental education and water quality preservation, have been recommended to enhance the shares of these products on the market. The recycling of used cooking oil also contributes to the reduction of water pollutants discharged from households. In the review carried out at the time the product lifecycle concept was introduced, the results of hearings conducted on manufacturers of Eco Mark certified products suggested that soap recycled from used cooking oil made up only a small share of the market, thus products using more than 50% used cooking oil as a raw material were reviewed as done in the previous criteria, aiming at continual promotion and extension of this product category.

As a result of the reviews, it was decided that certification criteria shall be established for this product category to spread the use of soap recycled from used cooking oil. Results of the hearings, however, made clear that more and more manufacturers are including 60% or more of soap recycled from used cooking oil per product in contrast to current certification criteria, which prescribes levels above 50%. It was also found that manufacturers with large plants carry out production based on the neutralization method, and it is difficult for them to technically use 100% used cooking oil. On the other hand, manufacturers with small- or medium-sized plants have adopted the saponification method in production and thus are able to use 100% used cooking oil; in fact, most of these manufacturers actually use 100% used cooking oil.

During the review of criteria, although there were comments that the Eco Mark plays an important role in sales and it would be a problem if Eco Mark criteria were overly strict, there were also opinions that the criteria should be made very stringent, and that only outstanding eco-friendly products should be certified under this program, because currently Eco Mark certification can be readily acquired and the program does not necessarily cover outstanding eco-friendly products. There are also manufacturers who discontinue the Eco Mark use contract because the Eco Mark does not produce results that match expenses in sales.

Ultimately, the prescribed percentage of used cooking oil to be used was raised from 50% to 100% for reasons that outstanding eco-friendly products should be recommended and that small- and medium-sized manufacturers are capable of producing their products using 100% used cooking oil. Though it was proposed that a moratorium be set for raising the percentage to 100%, it was decided that no such moratorium would be necessary in light of the fact that it is easy for manufacturers to increase content to 100%, and places where the Eco Mark plays an important role such as Vocational Training Centers do not use unused cooking oil for economical reasons.

## **B. Manufacturing Stage**

### **B-5 Discharge of atmospheric pollutants**

The following point was reviewed under this item:

(1) Appropriate management of atmospheric pollution shall be implemented
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Considering that environmental impact can be reduced by observing the relevant environmental laws and regulations, and agreements reached on atmospheric pollutants discharged in the manufacturing process, this item was selected as a criterion.

### **B-6 Discharge of water pollutants**

The following point was reviewed under this item:

(1) Appropriate management of wastewater shall be implemented

Considering that environmental impact can be reduced by observing the relevant environmental laws and regulations, and agreements on water pollutants discharged in the manufacturing process, this item was selected as a criterion.

#### B-9 Other environmental impacts

The following point was reviewed under this item:

(1) Appropriate management of noise and odor shall be implemented

Considering that environmental impact can be reduced by observing the relevant environmental laws and regulations, and agreements on noise and odor discharged in the manufacturing process, this item was selected as a criterion.

### C. Distribution Stage

#### C-1 Resource consumption

The following points were reviewed under this item:

(1) Eco-friendliness of packaging (Simple and using recycled materials)  
(2) Labeling on packaging

For (1), considering that soap is usually individually packaged, which means that considerable packaging material is used, reduction of the volume of packaging used and the use of recycled materials shall be promoted. Priority shall first be given to eliminating unnecessary packaging, reducing the quantity used if packaging is required, and using recycled materials for packaging. For these reasons, this item was selected as a criterion.

For (2), material composition shall be labeled in accordance with the criteria prescribed by the Containers and Packaging Recycling Law. This item was selected as a criterion.

#### C-8 Use/discharge of hazardous materials

The following point was reviewed under this item:

(1) Eco-friendliness of packaging (Harmful substances)

From the aspect of preventing the discharge of harmful substances during

disposal, it was decided that the addition of polymers including halogens and organic halogenides as prescription constituents shall be prohibited for plastic materials used for packaging. This item was selected as a criterion.

#### **D. Use and Consumption Stage**

##### **D-9 Other environmental impacts**

The following point was reviewed under this item:

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|--------------------------------|
| (1) pH, impurities<br>(2) Odor |
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For (1), the establishment of criteria was reviewed due to concerns of skin allergy, etc., and because it was found that similar JIS criteria exist, this item was not selected as an Eco Mark program criterion.

For (2), for reasons that it is difficult to evaluate quality, and assessment of this item is mainly subjective, this item was not selected as a criterion.

#### **3-2. Details of Establishing Quality Criteria**

Fair Competition Regulations Related to Labeling on Household Synthetic Detergents and Household Soaps are prescribed for soap recycled from used cooking oil for the purpose of protecting general consumers in the selection of appropriate products, preventing illegal consumer solicitation, and ensuring fair competition. These regulations specify standards for preventing inappropriate labeling, such as “not harmful to humans” and “does not cause river pollution”, etc. It was decided that labeling samples should be verified when screening products to be applied.