

Eco Mark Product Category No. 165

“Synthetic Fuel (Bio diesel / GTL fuel) Version1.0”
Certification Criteria

**Category A. Bio diesel fuel made up of hydrocarbons
generated from fats and oils**

— Applicable Scope —

Diesel engine fuel (for automobiles, construction machine, generator and other machine) that is made up of hydrocarbons generated from waste edible oil or microalgae grease, or diesel engine fuel that is generated from a mix with light oil.

Established: January 5, 2023
Latest revision:
Expiration date: January 31, 2029

Japan Environment Association
Eco Mark Office

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

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1. Purpose of Establishing Criteria

Omitted.

2. Applicable Scope

Diesel engine fuel (for automobiles, construction machine, generator and other machine)that is made up of hydrocarbons generated from waste edible oil or microalgae grease, or diesel engine fuel that is generated from a mix with light oil.

3. Terminology

Omitted.

4. Certification Criteria and Certification Procedure

The Attached Certificates shall be submitted to show the applying fuel conforms to the all criteria items from 4-1-1(1) to 4-2(6).

4-1. Environmental Criteria and Certification Procedure

4-1-1. Resource Saving and Resource Recycling

(1) The grease used for the applied fuel consists of 70% or more of the total mass of waste edible oil and other waste, residues and by-products, or microalgae grease

[Certification Procedure]

Submit a certificate that describes the type and mass percentage of a raw material of the grease used for the applied fuel and is issued by a manufacturer or applicant. In addition, submit a raw material certificate that describes the places and processes of generation of waste, residues and by-products to be used, and is issued by raw material suppliers (collectors). In the case of 5 raw

suppliers or more (collectors), submit a raw material certificate that is issued by a fuel manufacturer.

4-1-2. Prevention of Global Warming, Conservation of Biodiversity

- (2) Sustainability of biomass materials used in the applying fuel shall meet the requirements of Appendix 1(a) “Sustainability checklist of biomass materials”

[Certification Procedure]

Certificate indicating the conformance with Appendix 1 issued by a fuel manufacturer shall be submitted. When acquiring a third-party accreditation that was approved as an accreditation system based on the Renewable Energy Directive (RED) by the European Commission, the applicant has only to submit a copy of its accreditation certificate.

- (3) It shall be confirmed through life cycle assessment (LCA) that the applying fuel (1MJ equivalent) reduces GHG emissions (in terms of CO₂) throughout the life cycle of the fuel in comparison with diesel fuel.

[Certification Procedure]

An applicant shall submit the result of LCA evaluation conducted by a third-party. An applicant shall provide the LCA result and the calculation conditions. If the applicant has undergone LCA under an international sustainability certification scheme for fuels, its data may be used instead. The applicant may submit an academic paper published on a journal as an evidence as long as the same materials and/or manufacturing processes (sites) are mentioned in the paper.

4-1-3. Restriction and Control of Hazardous Substances

- (4) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous materials in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the last five years from the date of application (whether there is any violation) must be reported. If there is any violation, it is necessary that proper remedies and preventive measures have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the manager of the relevant plant (entry or attachment of the list of names of the Environmental Laws, etc.) must be submitted.

In addition, it is necessary to report whether there is any violation during the last five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (making a series of progress clear);

b. Following materials (copies of recording documents, and so on) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):

1) List of the Environmental Laws, etc. related to the area where the plant is located;

2) Implementation system (organizational chart with entry of roles, etc.);

3) Document stipulating retention of recording documents;

4) Recurrence prevention measures (future preventive measures);

5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

- (5) The applicant provides to users, information on proper handling of fuel, precautions concerning the way of storing the fuel, and the way of properly treating residual fuel.

[Certification Procedure]

Submit a copy of the part of the document describing proper handling of fuel, precautions concerning the way of storing the fuel, and the way of properly treating residual fuel. In addition, describe how to provide the relevant information in an attached certificate

4-2. Quality Criteria and Certification Procedure

- (6) The quality of the product conforms to an applicable public standard.

[Certification Procedure]

A certificate such as the result of quality analysis conducted within one year from the application date which attests that the fuels conform to the official specification such as compulsory standards of light oils specified in the “Act on the Quality Control of Gasoline and Other Fuels” (The Quality Assurance Law) shall be submitted.

5. Considerations

In the process of manufacturing, it is desirable to consider the following, although they are not requirements for certification. The response to each item shall be indicated in Attached Certificates.

- (1) When hydrotreatment is conducted in a manufacturing process for the applied fuel, hydrogen generated with limited CO₂ emissions, for instance, green hydrogen (hydrogen that is produced from water electrolysis by renewable-based power) or blue hydrogen (hydrogen that is generated with limited CO₂ emissions by collecting and storing or using CO₂ released in a hydrogen manufacturing process) is used.

6. Product classification, Indication and Others

- (1) Product classification (application unit) shall be by brand name.
- (2) In principle, the Eco Mark shall be indicated on the product, etc.



(Note for the indication)

- *For indicating the logo, Eco Mark certification number (eight-digit number) or the name of the licensee using the logo shall be appeared.
- * Such expression as “Eco Mark product” can be used following the 2.(2) of the Guide to Eco Mark Usage.
 - “Eco Mark product”, “#Eco Mark”, “www.ecomark.jp”, “Eco Mark Certificate”
- * In accordance with “Environmental Labeling Guidelines” of the Ministry of the

Environment of Japan, etc., the environmental claims of certified products may be indicated in association with Eco Mark.

- * The Guide to Eco Mark Usage shall be followed for any cases not listed above.
(<https://www.ecomark.jp/office/guideline/guide/>)

January 5, 2023	Established(Version1.0) (Category A, B)
January 31, 2028	Expiration date

The Certification Criteria for the Product Category will be revised when necessary.

Appendix 1 Sustainability checklist for biomass materials

No	Purpose	Request (Item that must be realized)	Subject	Realized	Implementation Method (Check off all relevant items.)
1	Prevention of global warming, conservation of the natural ecosystem	Hasn't the farm land where plants are cultivated been converted from valuable land in biodiversity or land with high carbon storage (forests, peatland, etc.) since 2008?	Farm land	<input type="checkbox"/> Not converted <input type="checkbox"/> Converted <input type="checkbox"/> Not applicable (No Use of Plant) <input type="checkbox"/> Not applicable due to residues or waste	<input type="checkbox"/> Confirmed the laws and regulations concerning the land conversion for the site. <input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Defined and released the guideline for procurement of plants. Alternatively, conforming to the guideline of an independent third party. - Name of the guideline: - Location of release: <input type="checkbox"/> Also using the certification system of an independent third party, regarding the procurement of plants. -Name of certification system: <input type="checkbox"/> Others (Describe specifically.):
2	Conservation of the ecosystem	If the Applicant uses the genetically modified crop or Microalgae and other microorganisms as a raw material, has the Applicant assessed ensuring of safety?	Farm land Incubation pool	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/ <input type="checkbox"/> Not applicable (No Use of GM crops, Microalgae) <input type="checkbox"/> Not applicable due to residues or waste	<input type="checkbox"/> Confirmed the laws and regulations concerning genetically engineered crop on the site. <input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Defined and released the guideline for procurement of plants. Alternatively, conforming to the guideline of an independent third party. - Name of the guideline: - Location of release: <input type="checkbox"/> Also using the certification system of an independent third party, regarding the procurement of plants. -Name of certification system: <input type="checkbox"/> Others (Describe specifically.):

No	Purpose	Request (Item that must be realized)	Subject	Realized	Implementation Method (Check off all relevant items.)
3	Prevention of land acidification/nutrient enrichment/water contamination	<p>Has the Applicant gained the understanding of usage conditions of fertilizers/agricultural chemicals in the main cultivation area of plants?</p> <p>Isn't any agricultural chemical regulated under the "Stockholm Convention on Persistent Organic Pollutants" (POPs Treaty) used?</p>	Farm land	<input type="checkbox"/> Yes/ <input type="checkbox"/> No <input type="checkbox"/> Not applicable (No Use of Plant) <input type="checkbox"/> Not applicable due to residues or waste	<input type="checkbox"/> Confirmed the laws and regulations concerning fertilizers/agricultural chemicals on the site <input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Defined and released the guideline for procurement of plants. Alternatively, conforming to the guideline of an independent third party. - Name of the guideline: - Location of release: <input type="checkbox"/> Also using the certification system of an independent third party, regarding the procurement of plants. -Name of certification system: <input type="checkbox"/> Others (Describe specifically.):
4	Appropriate water usage	<p>Has the Applicant gained the understanding of usage conditions of water in the main cultivation area of plants?</p> <p>Did the Applicant identify the usage of water in major production and cultivation pools for biomass (the use of water causes no contamination or has no adverse effect on drinking water and other surroundings)?</p>	Farm land Incubation pool	<input type="checkbox"/> Yes/ <input type="checkbox"/> No <input type="checkbox"/> Not applicable due to residues or waste	<input type="checkbox"/> Confirmed the laws and regulations concerning usage of water (limits on the amount of water) on the site. <input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Defined and released the guideline for procurement of plants. Alternatively, conforming to the guideline of an independent third party. - Name of the guideline: - Location of release: <input type="checkbox"/> Also using the certification system of an independent third party, regarding the procurement of plants. -Name of certification system: <input type="checkbox"/> Others (Describe specifically.)
5	Use of recycled	If recycled resources are available	Raw resin	<input type="checkbox"/> Yes/	Name of recycled resource in use

No	Purpose	Request (Item that must be realized)	Subject	Realized	Implementation Method (Check off all relevant items.)
	resources, avoidance of competition for food	as a part of materials on the site, did the Applicant preferentially use them?		<input type="checkbox"/> No/ <input type="checkbox"/> Not applicable (Recycled resources are not available)	[_____] Generated amount/percentage of recycled resources [_____]
6	Prevention of global warming	Has the Applicant gained the understanding of the processing status of methane having a high global warming potential if it is generated by fermentation in the biomass feedstock processing plant?	Biomass feedstock processing plant**	<input type="checkbox"/> Yes/ <input type="checkbox"/> No <input type="checkbox"/> Not applicable (No methane released)	<input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Others (Describe specifically.) [_____]
7	Utilization of non-fossil energy sources and renewable energy sources	In the course of cultivation to raw resin manufacturing, did the Applicant utilize as many non-fossil energy sources (for example, bagasse, biogas, off gas, etc.) or renewable energy sources as possible?	Biomass feedstock processing plant**	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	Energy name and method of utilization [_____]
8	Elimination of child and forced labors	Has the Applicant checked there is no child and forced labors?	Farm land Biomass feedstock processing plant**	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	<input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Received an accreditation under a third-party accreditation system for assessment of sustainability (including the ban of child and forced labors). <input type="checkbox"/> Others (Describe specifically.) [_____]
9	Legal compliance	Does the biomass feedstock supplier comply with the law	Biomass material supplier*	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	Name of biomass material supplier [_____]

No	Purpose	Request (Item that must be realized)	Subject	Realized	Implementation Method (Check off all relevant items.)
		involved in the business?			

* Residues or Waste defined in Renewable Energy Directive (RED) of EU

**Excluding a processing plant before biomass feedstock is released as a residue and by-product or waste.