

# Instructions for Form 8864



Department of the Treasury  
Internal Revenue Service

(Rev. January 2023)

## Biodiesel, Renewable Diesel, or Sustainable Aviation Fuels Credit

Section references are to the Internal Revenue Code unless otherwise noted.

### Future Developments

For the latest information about developments related to Form 8864 and its instructions, such as legislation enacted after they were published, go to [IRS.gov/Form8864](https://www.irs.gov/Form8864).

### What's New

**Credit extension.** The Inflation Reduction Act of 2022 (IRA 2022) extended the section 40A biodiesel and renewable diesel fuels credit.

**Sustainable aviation fuel.** IRA 2022 created a sustainable aviation fuel credit under section 40B, so line 8 is added to Form 8864. See [Line 8](#), later.

**Definition of renewable diesel and treatment of kerosene.** IRA 2022 made the following changes to the definition of renewable diesel and the treatment of kerosene, effective for fuel sold or used after December 31, 2022.

- Renewable diesel no longer includes fuel derived from biomass that meets the requirements of a Department of Defense specification for military jet fuel or an American Society of Testing Materials (ASTM) specification for aviation turbine fuel.
- Kerosene is no longer treated as diesel fuel for purposes of the renewable diesel mixture credit.

**Form 8864.** The title of Form 8864 is changed to "Biodiesel, Renewable Diesel, or Sustainable Aviation Fuels Credit." The changes on the form and the instructions are made to reflect the sustainable aviation fuel credit.

Don't claim the credit for biodiesel, renewable diesel, or sustainable aviation fuel sold or used after 2024, unless that credit is extended.

### Reminder

**Periodic updating.** Form 8864 and its instructions will no longer be updated annually. Instead, they'll only be updated when necessary.

## General Instructions

### Purpose of Form

Use Form 8864 (Rev. January 2023) to claim your section 40A biodiesel and renewable diesel fuels credit or the section 40B sustainable aviation fuel credit. Claim the credit for the tax year in which the sale or use occurs. The section 40A credit consists of the:

- Biodiesel credit,
- Renewable diesel credit,
- Biodiesel mixture credit,
- Renewable diesel mixture credit, and

- Small agri-biodiesel producer credit.

Partnerships, S corporations, cooperatives, estates, and trusts must file this form to claim the credit. All other taxpayers aren't required to complete or file this form if their only source for this credit is a partnership, S corporation, cooperative, estate, or trust. Instead, they can report this credit directly on the appropriate line of Form 3800, General Business Credit (for 2022, that's Part III, line 1l).

### Definitions and Special Rules

#### Certification

To claim a credit on lines 1 through 6, you generally must attach the Certificate for Biodiesel and, if applicable, Statement of Biodiesel Reseller, to Form 8864. To claim a credit on line 3 or 6, the certificate must indicate at all appropriate locations that the fuel to which it relates is renewable diesel and state that the fuel meets the requirements discussed under [Renewable Diesel](#), later. However, if the certificate or statement was attached to a previously filed claim, attach a statement with the following information.

- Certificate identification number.
- Total gallons of agri-biodiesel, biodiesel other than agri-biodiesel, or renewable diesel on the certificate.
- Total gallons claimed on Schedule 3 (Form 8849), Certain Fuel Mixtures and the Alternative Fuel Credit.
- Total gallons claimed on Form 720, Quarterly Federal Excise Tax Return, Schedule C.
- Total gallons claimed on Form 4136, Credit for Federal Tax Paid on Fuels.

To claim a credit on line 8 for qualified mixtures produced with a SAF synthetic blending component (SAF that meets the qualifications of an ASTM D7566 Annex), the Certificate for SAF Synthetic Blending Component, Statement of SAF Synthetic Blending Component Reseller (if applicable), and Declaration for SAF Qualified Mixture must be attached to the first claim filed that's supported by the certificate or statement. However, if the certificate, statement, and declaration were attached to a previously filed claim, attach a statement with the following information.

- Certificate identification number.
- Total gallons of SAF synthetic blending component on the certificate.
- Total gallons claimed on Schedule 3 (Form 8849).
- Total gallons claimed on Form 720.
- Total gallons claimed on Form 4136.

See Notice 2005-62 (biodiesel and aviation-grade kerosene) on page 443 of I.R.B. 2005-35 at [IRS.gov/Pub/IRB/IRB2005-35#NOT2005-62](https://www.irs.gov/pub/irb/irb2005-35#NOT2005-62); Notice 2023-6, or [Pub.510/ExciseTaxes](#), for more information.

## Biodiesel

Biodiesel means the monoalkyl esters of long-chain fatty acids derived from plant or animal matter that meet the registration requirements for fuels and fuel additives established by the Environmental Protection Agency (EPA) under section 211 of the Clean Air Act, and the requirements of the American Society of Testing and Materials (ASTM) D6751.

Biodiesel includes both agri-biodiesel and biodiesel other than agri-biodiesel. Biodiesel doesn't include the following.

- Fuel produced outside the United States or a U.S. possession for use as a fuel outside the United States or a U.S. possession.
- Any liquid that is eligible for the section 40 biofuel producer credit (Form 6478, Biofuel Producer Credit).

## Agri-Biodiesel

Agri-biodiesel means biodiesel derived solely from virgin oils, including esters derived from virgin vegetable oils from corn, soybeans, sunflower seeds, cottonseeds, canola, crambe, rapeseeds, safflowers, flaxseeds, rice bran, mustard seeds, and camelina, and from animal fats.

## Renewable Diesel

Renewable diesel means liquid fuel derived from biomass (defined below) that meets the registration requirements for fuels and fuel additives established by the EPA under section 211 of the Clean Air Act, and the requirements of the ASTM D975 or D396, or other equivalent standard approved by the IRS.

Renewable diesel doesn't include the following.

- Fuel produced outside the United States or a U.S. possession for use as a fuel outside the United States or a U.S. possession.
- Any fuel derived from co-processing biomass with feedstock that isn't biomass.
- Any liquid eligible for the section 40 biofuel producer credit (Form 6478).

**Biomass.** Biomass means any organic material other than oil, natural gas, or coal (including lignite), or any product of them.

## Biodiesel and Renewable Diesel Credits

The biodiesel or renewable diesel reported on lines 1 through 3 must not be a mixture. The credits are for biodiesel or renewable diesel, which during the tax year you:

- Used as a fuel in a trade or business, or
- Sold at retail to another person and put in the fuel tank of that person's vehicle.

However, no credit is allowed for fuel used in a trade or business that was purchased in a retail sale described above.



*You may be liable for a 24.4 cents per gallon excise tax on biodiesel or renewable diesel you sold (in your trade or business) for use or used in a diesel-powered highway vehicle or diesel-powered train. Report the tax liability on Form 720 on the line for IRS No. 79 for the quarter in which the biodiesel was sold or used,*

*or IRS No. 60(b) for the quarter in which the renewable diesel was sold or used.*

## Biodiesel and Renewable Diesel Mixture Credits

The biodiesel or renewable diesel reported on lines 4 through 6 must be used to make a qualified mixture. A qualified mixture combines biodiesel or renewable diesel with diesel fuel (defined below), determined without regard to any use of kerosene. However, treat the kerosene as diesel fuel when figuring a renewable diesel mixture credit for certain aviation fuel (see *Renewable Diesel* above). The producer of the mixture either:

- Used it as fuel, or
- Sold it as fuel to another person.

The credit is available only to the producer of the mixture. The producer must use or sell the mixture in a trade or business and the credit is available only for the year the mixture is sold or used. The credit isn't allowed for casual off-farm production of a qualified mixture.



*You may be liable for a 24.4 cents per gallon excise tax on biodiesel or renewable diesel used to produce blended taxable fuel outside the bulk transfer terminal system if the mixture is diesel fuel. Report the tax liability on Form 720 on the line for IRS No. 60(c) for the quarter in which the mixture was sold or used.*

**Diesel fuel.** Diesel fuel means:

- Any liquid that, without further processing or blending, is suitable for use as a fuel in a diesel-powered highway vehicle or diesel-powered train; and
- Transmix.

A liquid is suitable for this use if the liquid has practical and commercial fitness for use in the propulsion engine of a diesel-powered highway vehicle or diesel-powered train. A liquid may possess this practical and commercial fitness even though the specified use isn't the liquid's predominant use. However, a liquid doesn't possess this practical and commercial fitness solely by reason of its possible or rare use as a fuel in the propulsion engine of a diesel-powered highway vehicle or diesel-powered train. Diesel fuel doesn't include gasoline, kerosene, excluded liquid, No. 5 and No. 6 fuel oils covered by ASTM specification D396, or F-76 (Fuel Naval Distillate) covered by military specification MIL-F-16884.

An excluded liquid is any liquid that (a) contains less than 4% normal paraffins; or (b) has a (i) distillation range of 125 degrees Fahrenheit or less, (ii) sulfur content of 10 parts per million or less, and (iii) minimum color of +27 Saybolt. For example, biodiesel is always an excluded liquid because it doesn't contain paraffins. However, a biodiesel mixture may not be an excluded liquid.

Transmix means a by-product of refined products created by the mixing of different specification products during pipeline transportation.

## Qualified Agri-Biodiesel Production

Qualified agri-biodiesel production means up to 15 million gallons of agri-biodiesel that is produced by an eligible small agri-biodiesel producer (defined below), and that during the tax year:

1. Is sold by such producer to another person:
  - a. For use by such person in the production of a qualified biodiesel mixture in such other person's trade or business (other than casual off-farm production),
  - b. For use by such person as a fuel in a trade or business, or
  - c. Who sells such agri-biodiesel at retail to another person and places such agri-biodiesel in the fuel tank of such other person; or

2. Is used or sold by such producer for any purpose described in (1).

**Note.** Production of renewable diesel isn't qualified agri-biodiesel production.

**Eligible small agri-biodiesel producer.** An eligible small agri-biodiesel producer is a person who, at all times during the tax year, has a productive capacity for agri-biodiesel not in excess of 60 million gallons.

**Sustainable aviation fuel credit.** The term "sustainable aviation fuel" means the portion of liquid fuel that isn't kerosene that:

- Either (A) meets the specifications of one of the ASTM D7566 Annexes, or (B) meets the specifications of ASTM D1655 Annex A1;
- Isn't derived from coprocessing an applicable material (or materials derived from an applicable material) with a feedstock that isn't biomass;
- Isn't derived from palm fatty acid distillates or petroleum; and
- Has been certified in accordance with section 40B(e) as having a lifecycle greenhouse gas emissions reduction percentage of at least 50%.

**Qualified mixture.** The term "qualified mixture" means a mixture of sustainable aviation fuel and kerosene but only if:

- The mixture is produced by the taxpayer in the United States,
- Such mixture is used by the taxpayer (or sold by the taxpayer for use) in an aircraft,
- The sale or use is in the ordinary course of a trade or business of the taxpayer, and
- The transfer of such mixture to the fuel tank of such aircraft occurs in the United States.

**Applicable material.** The term "applicable material" means:

- Monoglycerides, diglycerides, and triglycerides;
- Free fatty acids; and
- Fatty acid esters.

**Lifecycle greenhouse gas emissions reduction percentage.** The term "lifecycle greenhouse gas emissions reduction percentage" means, for any sustainable aviation fuel, the percentage reduction in lifecycle greenhouse gas emissions achieved by such fuel as compared with petroleum-based jet fuel, as defined in accordance with the most recent Carbon Offsetting and Reduction Scheme for International Aviation, which has been adopted by the International Civil Aviation Organization with the agreement of the United States, or any similar methodology which satisfies the criteria under section

211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on August 16, 2022.

**Aggregation rule.** All members of the same controlled group of corporations (see section 267(f)) and all persons under common control (see section 52(b) but treat an interest of more than 50% as a controlling interest) are treated as 1 person for purposes of the 15- and 60-million-gallon limits.

**Partnership, S corporation, and other pass-through entities.** The 15- and 60-million-gallon limits discussed above are applied at both the entity level and at the partner or similar level.

## Registration

All producers and importers of biodiesel, renewable diesel, or sustainable aviation fuel must be registered with the IRS. All persons producing blended taxable fuel must be registered. See Form 637, Application for Registration.

## Coordination With Excise Tax Credit

Only one credit may be taken for any amount of biodiesel, renewable diesel, or sustainable aviation fuel. If any amount is claimed (or will be claimed) for any amount of biodiesel, renewable diesel, or sustainable aviation fuel on Form 720, Form 8849, Claim for Refund of Excise Taxes, or Form 4136, then a claim can't be made on Form 8864 for that amount of biodiesel, renewable diesel, or sustainable aviation fuel.

## Recapture of Credit

You must pay a tax (recapture) on each gallon of biodiesel or renewable diesel on which a credit was claimed at the rate used to figure the credit if you:

- Use it (including a mixture) other than as a fuel;
- Buy it at retail and use it to create a mixture;
- Separate it from a mixture; or
- Use agri-biodiesel on which the small agri-biodiesel producer credit was claimed for a use not described under *Qualified Agri-Biodiesel Production*, earlier.

Report the tax on Form 720, Part II, IRS No. 117, for the quarter in which you did any of the above.

## Additional Information

See Pub. 510, Excise Taxes.

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## Specific Instructions

Use lines 1 through 9 to figure any biodiesel, renewable diesel, or sustainable aviation fuel credit from your own trade or business.

Skip lines 1 through 9 if you're claiming only a credit that was allocated to you from a pass-through entity (that is, an S corporation, partnership, estate, trust, or cooperative).

### Line 8

Enter the correct rate in box 8(b). If more than one rate applies, leave the Rate column blank and attach a schedule showing the rates and number of gallons claimed at each rate.

## Line 9

Include this amount in income, under “other income” on the applicable line of your income tax return, even if you can’t use all of the credit because of the tax liability limit. However, if you’re subject to alternative minimum tax (AMT), this amount isn’t income in figuring AMT and must be subtracted when figuring your alternative minimum taxable income. Do this by including this amount on the appropriate line of:

- Form 6251, Alternative Minimum Tax—Individuals
- Form 1041, Schedule I

## Line 10

If you are allocated a small agri-biodiesel producer credit from a pass-through entity, the entity must tell you the number of gallons for which it claimed the credit and its productive capacity for agri-biodiesel. You, as a shareholder, partner, beneficiary, or patron are subject to the 15-million-gallon limitation for qualified agri-biodiesel production and the 60-million-gallon productive capacity limitation for an eligible small agri-biodiesel producer.

## Line 11

For 2022, report this amount on 2022 Form 3800, Part III, line 11.

## Line 12

A cooperative, estate, or trust allocating the small agri-biodiesel credit must give the patron or beneficiary a statement providing them with the number of gallons for which it claimed the credit and its productive capacity for agri-biodiesel. An estate or trust must also provide the amount of the small agri-biodiesel credit included as part of the pass-through credit. See the above instructions for line 10.

**Cooperatives.** A cooperative described in section 1381(a) can elect to allocate any part of the small agri-biodiesel producer credit to patrons of the cooperative. The credit is allocated pro rata among the patrons eligible to share in patronage dividends on the basis of the quantity or value of business done with or for the patrons for the tax year.

If the cooperative is subject to the passive activity rules, include on line 10 any Form 8864 credits from passive activities disallowed for prior years and carried forward to this year. Complete Form 8810, Corporate Passive Activity Loss and Credit Limitations, to determine the allowed producer credits that can be allocated to patrons. For details, see the Instructions for Form 8810.

The cooperative is deemed to have made the election by completing line 12. However, the election isn’t effective unless:

- It’s made on a timely filed return (including extensions); and
- The cooperative designates the apportionment in a written notice or Form 1099-PATR, Taxable Distributions Received From Cooperatives, mailed to its patrons during the payment period described in section 1382(d).

If you timely filed your return without making an election, you can still make the election by filing an amended return within 6 months of the due date of the return (excluding extensions). Enter “Filed pursuant to section 301.9100-2” on the amended return.

Once made, the election can’t be revoked.

**Estates and trusts.** Allocate the biodiesel, renewable diesel, or sustainable aviation fuel credit on line 11 between the estate or trust and the beneficiaries in the same proportion as income was allocated and enter the beneficiaries’ share on line 12.

If the estate or trust is subject to the passive activity rules, include on line 10 any Form 8864 credits from passive activities disallowed for prior years and carried forward to this year. Complete Form 8582-CR, Passive Activity Credit Limitations, to determine the allowed credit that must be allocated between the estate or trust and the beneficiaries. For details, see the Instructions for Form 8582-CR.

## Line 13

For 2022, report this amount on 2022 Form 3800, Part III, line 11.

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**Paperwork Reduction Act Notice.** We ask for the information on this form to carry out the Internal Revenue laws of the United States. You are required to give us the information. We need it to ensure that you are complying with these laws and to allow us to figure and collect the right amount of tax.

You are not required to provide the information requested on a form that is subject to the Paperwork Reduction Act unless the form displays a valid OMB control number. Books or records relating to a form or its instructions must be retained as long as their contents may become material in the administration of any Internal Revenue law. Generally, tax returns and return information are confidential, as required by section 6103.

The time needed to complete and file this form will vary depending on individual circumstances. The estimated burden for individual taxpayers filing this form is approved under OMB control number 1545-0074 and is included in the estimates shown in the instructions for their individual income tax return. The estimated burden for all other taxpayers who file this form is shown below.

<b>Recordkeeping</b> .....	6 hr., 13 min.
<b>Learning about the law or the form</b> .....	45 min.
<b>Preparing and sending the form to the IRS</b> .....	2 hr., 5 min.

If you have comments concerning the accuracy of these time estimates or suggestions for making this form simpler, we would be happy to hear from you. See the instructions for the tax return with which this form is filed.

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