



AMERICAN PETROLEUM INSTITUTE

Global Industry Services
Certification Programs

Diesel Exhaust Fluid Certification Program

Overview

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Diesel Exhaust Fluid Certification Program

Foreword

This overview describes the voluntary API Diesel Exhaust Fluid Certification Program and is intended to explain to marketers how API Diesel Exhaust Fluid Certification and API Marine Diesel Exhaust Fluid Certification Marks are licensed and displayed for the consumer. The overview provides the marketer with descriptions of the Marks and their use, licensing requirements, aftermarket conformance, and enforcement procedures.

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Suggested revisions are invited and should be submitted to:

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Diesel Exhaust Fluid Certification Program

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Diesel Exhaust Fluid Certification Program

Section 1 – General

1.1 Introduction

This document provides an overview both the API Diesel Exhaust Fluid Certification Program and the API Marine Diesel Exhaust Fluid Certification Program. For the sake of simplicity and due to the similarity between the programs, references within this document to the API Diesel Exhaust Fluid Certification Program shall hereby apply to both programs unless specifically stated otherwise.

The API Diesel Exhaust Fluid Certification Program is a voluntary program designed to certify and monitor the quality characteristics of diesel exhaust fluid intended to operate converters with selective catalytic reduction (SCR) in applications with diesel engines. Diesel exhaust fluid marketers that meet specific quality characteristics for diesel exhaust fluid may be licensed to display the API Diesel Exhaust Fluid Certification Marks.

1.2 API Diesel Exhaust Fluid Certification Program Overview

1.2.1 The API Diesel Exhaust Fluid Certification Program is designed to certify and monitor brands of diesel exhaust fluid intended to operate converters with selective catalytic reduction (SCR) in motor vehicles and marine, rail, stationary and other applications with diesel engines. The system includes a formal license agreement executed by the marketer with API. The program's Marks are intended to help the consumer identify brands of fluids that have satisfied the applicable requirements for licensing and certification. The system includes an audit process to verify that licensed brands in the marketplace comply with the terms of the API Licensing Agreement.

1.2.2 API issues a license to a diesel exhaust fluid marketer after the marketer confirms it has met all the requirements spelled out in this document, the licensing application, and an International Organization for Standardization (ISO) standard. The marketer must execute the API Licensing Agreement as a condition of licensure.

1.2.3 Quality characteristics, test methods, and limits for Diesel Exhaust Fluid are established by ISO Technical Committee (TC) 22, *Road vehicles*, Subcommittee (SC) 5, *Engine tests*. Quality characteristics, test methods, and limits for Marine Diesel Exhaust Fluid are established by ISO Technical Committee (TC) 8, *Ships and marine technology*, Subcommittee (SC) 2, *Marine environment protection*.

1.2.4 The API Diesel Exhaust Fluid Certification Mark and the API Marine Diesel Exhaust Fluid Certification Mark do not change. Annual licenses for these mark are issued only for diesel exhaust fluids that meet the current, applicable ISO quality characteristics.

1.2.5 The test data that support product claims are the responsibility of the individual marketer.

1.2.6 Diesel exhaust fluid licensed to use the API Diesel Exhaust Fluid Certification Mark or the API Marine Diesel Exhaust Fluid Certification Mark is subject to conformance audits. Conformance is determined by comparing measured physical and chemical properties of the fluid against licensing data on file at API and the quality characteristics in the applicable ISO standard.

1.2.7 A Diesel Exhaust Fluid Task Force has been established for the purpose of providing guidance to the API Diesel Exhaust Fluid Certification Program. Membership on this Task Force is at the discretion of API in consultation with the Alliance for Automobile Manufacturer's SCR Stakeholder Group.



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Section 2 – Description of API Diesel Exhaust Fluid Certification Marks

2.1 Diesel Exhaust Fluid Certification Mark

The API Diesel Exhaust Fluid Certification Mark (API DEF Mark) is designed to identify diesel exhaust fluid intended to operate converters with selective catalytic reduction (SCR) in motor vehicles with diesel engines. The Mark may be licensed only if the diesel exhaust fluid satisfies the requirements of the most recent and applicable edition of ISO 22241, *Diesel Engines – NOx Reduction Agent AUS 32*, Part 1: Quality Requirements.

2.2 Marine Diesel Exhaust Fluid Certification Mark

The API Marine Diesel Exhaust Fluid Certification Mark (API Marine DEF Mark) is designed to identify diesel exhaust fluid intended to operate converters with selective catalytic reduction (SCR) in marine, rail, stationary or other applications with diesel engines. The Mark may be licensed only if the marine diesel exhaust fluid satisfies the requirements of the most recent and applicable edition of ISO 18611, *Ships and marine technology – Marine NOx Reduction Agent AUS 40*, Part 1: Quality Requirements.

Figure 1
API Diesel Exhaust Fluid Certification Mark



Figure 2
API Marine Diesel Exhaust Fluid Certification Mark



Diesel Exhaust Fluid Certification Program

Section 3 – API Diesel Exhaust Fluid Certification Mark Licensing System

3.1 General

3.1.1 The API Diesel Exhaust Fluid Certification Program is a voluntary program designed to certify and monitor the quality characteristics of diesel exhaust fluid intended to operate converters with selective catalytic reduction (SCR) in motor vehicles or marine, rail, stationary and other applications with diesel engines. Diesel exhaust fluid marketers that meet relevant specific quality characteristics for diesel exhaust fluid may be licensed to display either or both the API Diesel Exhaust Fluid Certification Mark and the API Marine Diesel Exhaust Fluid Certification Mark. The purpose of the Marks is to ensure that diesel exhaust fluid meeting the ISO 22241 or ISO 18611 standards for aqueous urea solution (AUS 32 or AUS 40) is easily identified by consumers.

3.1.2 To use either the API Diesel Exhaust Fluid Certification Mark or the API Marine Diesel Exhaust Fluid Certification Mark, a diesel exhaust fluid marketer must obtain a license from API. Upon request, API will supply information to the marketer that describes reporting requirements for physical and chemical properties, documentation and verification of bench test performance, conformance and enforcement procedures, fees, trace codes, application procedures, and licensing requirements. The procedures the marketer must follow and the application the marketer must complete and submit to API to secure the right to use the Marks are described below. A marketer desiring to apply for a license should do so via the online licensing system at <https://dieselexhaust.api.org>. Licenses are valid for one year as long as all program requirements continue to be met. Annual renewals are issued when all renewal steps are completed.

3.2 Royalty Fees

3.2.1 Licensees pay API royalty fees to support the Diesel Exhaust Fluid Certification Program. These fees are reviewed annually. The current fee structure is available online at www.api.org/def.

3.2.2 Licensees pay an annual minimum royalty fee and a royalty fee for each gallon of API-licensed diesel exhaust fluid sold.

3.2.2.1 An application fee is charged to all licensees upon initial licensing. A licensing renewal fee is charged to all licensees upon annual renewal.

3.2.2.2 New licensees are only assessed the application fee in their initial year of licensing. The royalty fee based on a licensee's volume of API-licensed diesel exhaust fluid sold is charged to the licensee at time of license renewal. To renew an API license, the licensee must report the volume of all API-licensed diesel exhaust fluid (packaged and bulk) sold in the prior year. Volume-of-sales figures will be held in strict confidence by API.

3.3 Responsibility of Marketers

Only diesel exhaust fluid marketers may apply for and be awarded a license to display the relevant API Diesel Exhaust Fluid Certification Mark. A diesel exhaust fluid marketer is the marketing organization responsible for the integrity of the brand name and representation of the branded product in the marketplace. The marketer is solely responsible for ensuring that the quality characteristics of the certified diesel exhaust fluid meet all of the requirements of the certification program.

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Section 3 – API Diesel Exhaust Fluid Certification Mark Licensing System

3.4 Licensing Procedures

3.4.1 A valid API license permits the marketer to use the applicable API Diesel Exhaust Fluid Certification Mark on its licensed diesel exhaust fluid brands and is that marketer's warranty that its licensed brands comply with licensing requirements. The license application requires applicants to certify that its licensed diesel exhaust fluid meets ISO 22241 or ISO 18611 requirements and to abide by all the requirements of the program and the licensing agreement.

3.4.2 The online license application specifies which certified information is required to qualify for a license for the applicable API Diesel Exhaust Fluid Certification Mark. This includes written certification by the marketer that each brand of diesel exhaust fluid for which licensing is requested meets the most recent version of prescribed technical criteria as set forth in ISO 22241 or ISO 18611.

3.4.3 The applicant is required to submit a formulation for all finished-fluid supply sources of the brand to be licensed. The following information is required for each formulation (or source) of the brand to be licensed:

- a. Typical physical and chemical properties, supported by actual test laboratory data, as described herein.
- b. A Certificate of Analysis (CoA), issued no more than 6 months prior to the date the application is submitted to API, which includes laboratory test results demonstrating compliance with ISO 22241 or ISO 18611. The laboratory must maintain a formal quality system that meets or exceeds the minimum requirements of ISO 9001. Additionally, the laboratory must participate in a recognized industry round-robin testing program such as the ASTM Proficiency Test Program (PTP).
- c. Product traceability code information for labelled products.

All licensed fluids are subject to monitoring and enforcement procedures, including audits.

3.4.4 After the marketer has completed and submitted the application, paid the fee, and been granted the license, the marketer may display the applicable API Diesel Exhaust Fluid Certification Mark on licensed brands in accordance with Section 4.

3.4.5 API maintains strict confidentiality of all proprietary data provided by license applicants. Information submitted is used only as specified in the license agreement.

3.5 Renewals

A license may be renewed annually by mutual agreement of the parties, provided the licensee reports the volume of licensed diesel exhaust fluid sold the previous year, pays the annual fee, and agrees to comply with any amendments to the license agreement and any modifications or additional specifications of the license requirements. In addition to the aforementioned requirements of renewal, the licensee must also submit a minimum of three (3) batch test results, adequately spaced and covering the previous year. Batch test results must include all of the quality characteristics specified by ISO 22241 and/or ISO 18611.

3.6 System Monitoring and Enforcement

The integrity of the API Diesel Exhaust Fluid Certification Program is maintained by means of a formal monitoring and enforcement program, as defined in Section 5.



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Section 4 – Use and Labeling Requirements for the API DEF Marks

4.1 Use of API Diesel Exhaust Fluid Certification Marks

A marketer may display the applicable API Diesel Exhaust Fluid Certification Mark, as described in this section, only after obtaining a license to use it. Under the terms of the License Agreement, marketers may use the applicable Mark in a number of ways: for example, on containers of licensed brands (bottles, cans, intermediate bulk containers, drums, and dispensing units), in advertisements of licensed brands, and in materials describing licensed brands (including shipping documentation). The API Marks shall be located and displayed as described in 4.2.

4.2 Labeling Requirements

4.2.1 If the API Diesel Exhaust Fluid Certification Mark or the API Marine Diesel Exhaust Fluid Certification Mark is used, it shall be clearly displayed on the front of the container of those brands of diesel exhaust fluid that have been properly licensed by API. Note that this does not prevent the licensed marketer from displaying the Mark again on the back of the container.

4.2.2 API shall supply, on request, electronic versions of the Diesel Exhaust Fluid Certification Mark or the API Marine Diesel Exhaust Fluid Certification Mark in a variety of formats (JPG, TIF, BMP, and/or EPS). The minimum size of the Mark shall be 2.5 centimeters by 2.5 centimeters (see Figures 3 and 4), and it can be reproduced in several color schemes:

Figure 3

2.5 x 2.5 Centimeter Versions of API Diesel Exhaust Fluid Certification Mark



Figure 4

2.5 x 2.5 Centimeter Versions of API Marine Diesel Exhaust Fluid Certification Mark





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Section 4 – Use and Labeling Requirements for the API DEF Marks

4.2.3 API has registered the API Diesel Exhaust Fluid Certification Mark only in the English language and it may only be displayed as registered (see Figure 1). API is currently in the process of registering the API Marine Diesel Exhaust Fluid Certification Mark and intends to register it in an identical manner (see Figure 2). However, the purpose of the Marks is to assist consumers, so API encourages licensed marketers to translate the words CERTIFIED DIESEL EXHAUST FLUID or CERTIFIED MARINE DIESEL EXHAUST FLUID into any appropriate language outside of the Mark. The translation must be literal. The location of the translations can be anywhere on the front of the label but not within a mark or symbol of any kind. AMERICAN PETROLEUM INSTITUTE is also a licensed mark and cannot be translated without permission of API.

4.3 Product Traceability Coding

4.3.1 For purposes of conformance audits, the marketer shall ensure that product traceability codes appear on each container and that these codes are legible and durable. Each container shall be coded to permit traceability of samples in the marketplace by formulation, date of packaging, and source of manufacture.

4.3.2 The marketer may use whatever coding system is appropriate or convenient. Disclosure of coding systems to API is required in the license application. No change in coding is permitted without prior notification of API. Coding information provided to API is considered confidential and will be used only as described in the API license agreement.

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Section 5 – System Monitoring, Enforcement and Conformance

5.1 General

5.1.1 API's Diesel Exhaust Fluid Aftermarket Audit Program (DEFAMAP) is a monitoring and enforcement program designed to ensure compliance with the API Diesel Exhaust Fluid Certification Program. The integrity of this voluntary system depends on adherence by marketers (licensees) to industry technical specifications and compliance with the terms of the marketers' licensing agreements. Monitoring and enforcement efforts are directed to ensure that licensed diesel exhaust fluids meet industry technical specifications and that the API Diesel Exhaust Fluid Certification Mark is properly displayed on containers and conveys accurate information to consumers about the contents.

5.1.2 An attempt will be made annually to secure samples of brands of diesel exhaust fluids currently licensed by API. Samples will be drawn in accordance with ISO 22241-2 or ISO 18611-2, as applicable. Each of the diesel exhaust fluids sampled will be analyzed to determine compliance with the applicable technical specifications (physical, chemical, and bench tests).

5.1.3 Physical and chemical audit data are compared with the information submitted through the API licensing process. Test results must meet the physical and chemical tolerances described in ISO 22241 or ISO 18611, as applicable.

5.1.4 API will contract with independent organizations to collect samples from the field and conduct all physical and chemical analyses and bench tests.

5.1.5 Data obtained through DEFAMAP are considered confidential, are available only to the appropriate API staff and the licensee, and are used only for the purposes stated in the inquiry. Specific data derived from DEFAMAP will not be used for any reason other than the monitoring process without written permission from the licensee. When summary data are issued by API, they will not be company specific.

5.2 Violations

5.2.1 General

Violations of the API Diesel Exhaust Fluid Certification Program are divided into two categories: (a) noncompliance with technical specifications and (b) improper use of the API Diesel Exhaust Fluid Certification Mark or the API Marine Diesel Exhaust Fluid Certification Mark.

5.2.1.1 Noncompliance with Technical Specifications

If an API-licensed diesel exhaust fluid does not meet technical specifications, API will attempt to work directly with the marketer to evaluate the nonconformity and take additional corrective action as appropriate on a voluntary basis. In the event that the matter cannot be satisfactorily resolved, API will take or initiate the actions listed below, singly or in combination, to maintain the credibility of the applicable API Mark and protect the consumer. Enforcement action will be related to the severity of the alleged offense, the period of time that the violating product has been in the marketplace, the efforts made by the marketer to correct the violation, and the possible harmful impact on the consumer. These actions include the following:

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Section 5 – System Monitoring, Enforcement and Conformance

- a. Temporary suspension of the authority of the licensee to use the API Mark in question on a product until corrective action has been taken.
- b. Termination of the authority of the licensee to use the API Mark in question on an individual product.
- c. Termination of the authority of the licensee to use the API Mark in questions on all API-licensed products marketed by the licensee.
- d. Requirement for the licensee to remove noncomplying products that display the API Mark in question from the marketplace.

Note: All monitoring and enforcement actions must be resolved to API's satisfaction before an existing license will be renewed or a new license issued.

5.2.1.2 Improper Use of API Marks

If licensed or unlicensed oils display an improper label or unauthorized labeling data, API will require the marketer to cease and desist from committing the violation and will request verification that the violation has been corrected.

5.2.2 Verification of Compliance with API Enforcement Action

API will take steps to verify that required corrective action has been executed. Actions requested to verify compliance will depend on the seriousness of the violation. The cost of these verification procedures will be borne by the marketer, as specified in the license agreement. Verification procedures include the following:

- a. Submission of copies of labels. The marketer will be required to provide a copy of all labels reflecting the correction of the API Mark violation.
- b. Attestations. The marketer will be required to furnish an affidavit from a third party (a law firm or an accounting firm) that the specified remedial action has been completed.
- c. Retesting. The marketer will agree to undertake any agreed-upon retesting.
- d. Other evidence of compliance. API can make other reasonable requests to verify compliance.

5.2.3 Appeals

When API suspends or revokes a license, the former licensee may appeal the decision. Appeals must be submitted in writing to the Director, Training and Certification. The appeal shall include a statement of the basis for the objection. The appeal must be filed with API within 45 days of the date of notification of the suspension or revocation of the license. The API Director shall investigate the objections raised and respond to them in writing within 45 days of receipt. If the objections cannot be resolved by the Director, a hearing by a designated appeals board shall be convened in accordance with API Policy 104.

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Section 6 – Referenced Publications

The following standards and specifications are cited in this document. In each case, the most recent version is applicable.

ISO 22241

Diesel engines – NOx reduction agent AUS 32

- Part 1 Quality Requirements
- Part 2 Test Methods
- Part 3 Handling, Transportation, and Storage

ISO 18611

Ships and marine technology – Marine NOx reduction agent AUS 40

- Part 1 Quality Requirements
- Part 2 Test Methods
- Part 3 Handling, Transportation, and Storage

ISO 9001

Quality management systems – Requirements



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