



Public

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Universal Fuel Injector Cleaner

Data Sheet

3M Part No.(s) **3M Part Descriptor(s)**
08956 Professional Formula Universal Fuel Injector Cleaner

3M Fax on Demand Identification Number: 60-9800-2089-9 or 08956

Description

3M™ Professional Formula Universal Fuel Injector Cleaner is designed to remove varnish, gum and other deposits from multi-port, throttle body, and mechanical fuel injectors. The cleaner is conveniently applied through the 3M™ Universal Cleaner Hose P.N. 08838, 3M™ Gauge/Regulator Assembly P.N. 08828, 3M™ Can Hanger P.N. 08837 and an appropriate 3M fuel system adapter. 3M™ Fuel Injector Cleaner improves fuel atomization and restores engine efficiency. This results in a smoother running engine with less hydrocarbon and carbon monoxide pollutants.

Features, Advantages, Benefits

Features Easy to use
 Oxygen sensor safe

Advantages

- Clean burning
- Effective cleaner

Benefits

Typical Physical Properties

Container	20 Oz. Aerosol
Base	Toluene, Xylene, Methanol, DiAcetone Alcohol, Ethylbenzene
Color	Clear
Flash Point - °F	-50 Degrees F
Solids Content (Appx.)	100% Volatile
Solvent	100%
Net Weight	10.0 Oz. (285 Grams)
Volume Fill	19.0 Fl. Oz.

Product Uses

For cleaning fuel injectors on all throttle body and multi-port fuel injected four cycle gasoline internal combustion engines.

Performance Properties

A cleaning study on 108 cars used Hydrocarbon and Carbon Monoxide levels in the exhaust before and after cleaning as the basis for evaluating the effectiveness of the 3M™ Fuel Injector Cleaners. Figure 1 shows the results. The cars tested ranged in model year from 1983 to 1992 and encompassed the following manufacturers; General Motors, Ford, Chrysler, Toyota, Honda, Nissan, Volvo, Saab, Mazda, Isuzu, Jaguar and Volkswagen.

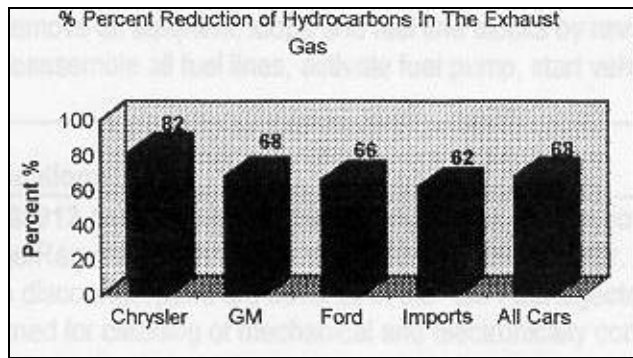


Figure 1

Handling and Application Information

Directions for Use

FOR PROFESSIONAL USE ONLY! Do not attempt to use the 3M™ Fuel Injector Cleaner unless you are familiar with the vehicular fuel system you are working with. Read, understand and follow all safety information and fundamental preparation sections in the 3M™ Fuel System Cleaning Manual before using this product.

For best results, make sure the can of cleaner is between 65°F and 80°F (18°C and 26°C)

CAUTION: Steps 4, 7, 20, 21

Always assume the fuel injection system is pressurized. Before working on any system, bleed off the fuel system pressure by; shutting off the fuel pump, loosening the gas tank cap, and cranking over the engine. Loosen the fasteners slowly to relieve residual pressure. Wrap the connections with a shop cloth while separating to prevent spraying and catch fuel.

1. Start the engine and bring it to normal operating temperature. You are at operating temperature when the cooling fan starts. Cleaning process is more effective with warm engine.
2. Once the engine is at operating temperature, turn off the ignition and all accessories. This eliminates possible electrical discharge and minimizes variations to the engine speed during cleaning.
3. Remove the fuel cap to relieve pressure in the fuel system and reduce leakage during adapter hook-up.
4. Disable the fuel pump. Try to restart the engine to make sure the fuel pump is disabled. This also helps to reduce the fuel rail pressure. NOTE: *Disabling the fuel pump by fuse or relay may shut down the vehicles injector drive circuit on certain vehicle makes. See 3M™ Fuel System Cleaning Guide for correct fuel pump shut off.*
5. Select the proper fuel system adapter for the vehicle to be cleaned and attach it to the end of 3M™ Universal Cleaner Hose.
6. Make sure the ball valve on the 3M™ Universal Cleaner Hose is in the OFF position (perpendicular / 90° to hose).

7. Attach the 3M™ Universal Cleaner Hose, and the previously selected fuel system adapter, to the fuel access location on the vehicle.
8. Remove the quick disconnect from the 3M™ Universal Cleaner Hose by pressing the silver tab on the fitting and pulling it straight out.
9. Screw the quick disconnect onto the threaded top of the 3M™ Fuel Injector Cleaner can. **Caution:** Do Not Overtighten! The fitting is designed for hand tightening only!
10. Insert the pin portion of the 3M™ Universal Cleaner Hose into the quick disconnect on the side of 3M™ Gauge/Regulator Assembly. NOTE: *If you encounter resistance, lightly lubricate the pin and rotate the hose while inserting.*
11. Ensure that the 3M™ Gauge/Regulator knob is in the fully closed position (counter-clockwise).
12. Turn the can of 3M™ Fuel Injector Cleaner upside down ("Dispense This End Up" to top) and insert the pin portion of 3M™ Gauge/Regulator assembly into the fitted mating end of the quick disconnect. NOTE: *If you encounter resistance, lightly lubricate the pin and rotate the can while inserting.*
13. Hang the can of 3M™ Fuel Injector Cleaner upside down from the hood using the 3M™ Can Hanger. **Caution:** Keep all the hardware free of moving parts, battery terminals, or excessive heat.
14. Dial in the correct cleaning pressure by slowly turning the regulator knob on the 3M™ Gauge/Regulator clockwise.
15. Turn the ball valve on the 3M™ Universal Cleaner Hose to the *ON* position (fuel system is now pressurized) and inspect all connections for leaks.
16. Start the automobile and allow the engine to idle until the can empties and the engine dies (about 15 minutes). NOTE: *Monitor and readjust the cleaning pressure as needed. Some larger engines may require 2 cans of cleaner to reach the minimum of 15 minutes of running time needed for the most effective cleaning service.*
17. When the vehicle stalls from the lack of cleaner, turn *OFF* the vehicle's ignition switch, turn *OFF* the ball valve on the 3M™ Universal Cleaner Hose, and turn the knob on the 3M™ Gauge/Regulator to the fully closed (counter-clockwise) position.
18. Remove the empty can of 3M™ Fuel Injector Cleaner from the 3M™ Gauge/Regulator by pressing the silver tab on the quick disconnect fitting and pulling it straight out. Remove the quick disconnect fitting from the top of the can and re-connect it to the 3M™ Universal Cleaner Hose.
19. Remove the 3M™ Gauge/Regulator from the 3M™ Universal Cleaner Hose by pressing the silver tab on the quick disconnect fitting and pulling it straight out.
20. Before disconnecting the 3M™ Universal Cleaner Hose from the engine, attempt to re-start the engine (this reduces the remaining fuel system pressure). Bleed off the rest of the pressure by holding a shop cloth over the pin portion of the 3M™ Universal Cleaner Hose and slowly opening the ball valve.
21. Remove all the adapters, loops, and fuel line blocks by reversing the installation procedure.
22. Reassemble all the fuel lines, activate the fuel pump, start the vehicle, and closely inspect for any fuel leaks.
23. Test drive the vehicle and return it to the customer.

Applications

3M™ Professional Formula Universal Fuel Injector Cleaner P.N. 08955 is designed to be used in conjunction with the 3M™ Universal Cleaner Hose P.N. 08838, 3M™ Gauge/Regulator Assembly P.N. 08828, 3M™ Can Hanger P.N. 08837 and an appropriate 3M fuel system adapter. Complete details on the various methods of hookup, fuel pump disconnects, and fuel system adapters are covered in the 3M™ Fuel System Cleaning Guide. This product is designed to be applied by professional automotive technicians through the electronic or mechanically controlled fuel injection system on gasoline engines

ONLY! DO NOT ATTEMPT TO USE THESE PRODUCTS ON DIESEL ENGINES!

Storage and Handling

Store at room temperature.

DO NOT STORE IN TEMPERATURES BELOW 65°F (18°C) OR IN EXCESS OF 120°F (49°C)

Rotate stock on a "first-in-first-out" basis. When stored at the recommended conditions in original, unopened containers, this product has a shelf life of 12 months.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for Health and Safety Information before using this product.

CAUTION: FLAMMABLE LIQUIDS UNDER PRESSURE! If not used properly, Personal and/or property damage can occur!

Keep away from heat, sparks, open flame and sources of static discharge. Use in well-ventilated areas. Provide sufficient ventilation to maintain emissions below recommended exposure limits. Avoid eye and skin contact. Avoid inhalation of vapors, mist, or spray. Wash thoroughly after handling. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F (49°C). Read, understand and follow all safety information and fundamental preparation sections in the 3M™ Fuel System Cleaning Manual before using this product. Do not smoke in the vicinity of product use. Use ONLY 3M hardware to connect to 3M™ Fuel Injector Cleaner. Do not use 3M hardware with any cleaner that is not 3M. Inspect all hardware items before each use. Damaged hardware or hoses should not be used. Replacement seals and washers are available in 3M™ Washer and "O" Ring Replacement Kit P.N. 08937. Use a shop cloth to minimize drips or leaks when connecting or disconnecting fuel lines and/or the 3M™ Fuel Injector Cleaner. Use a fuel resistant, non-absorbent fender cover to protect exposed, painted surfaces

- **Cleaner will attack paint.** During use, have a class B, CO2 fire extinguisher available for emergencies. Never leave the vehicle unattended during the use of this product.

KEEP OUT OF THE REACH OF CHILDREN

Country

US

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Important Notice to Purchaser

The statements and technical information contained in this technical data sheet are based on tests and data which 3M believes to be reliable, but the accuracy or completeness of such statements and technical information is not guaranteed. **3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application.

* If 'Directions for Use' reference P.N.'s 8984, 8986, or 8987, please read below.

Federal and local air quality regulations may regulate or prohibit the use of surface preparation and cleanup solvents based on VOC content. Consult your local and Federal air quality regulations for information. When using solvents, use in a well ventilated area. Extinguish all sources of ignition in the work area and observe precautionary measures for handling these materials. Refer to product label and MSDS for P.N. 8984, 8986, or 8987 for detailed precautionary information.

LIMITATION OF REMEDIES AND LIABILITY: If the 3M product is proved to be defective, **THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT.**

3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.

For Additional Health and Safety Information

See Material Safety Data Sheet (Fax on Demand 1-800-305-0419), or call: **3M Automotive Aftermarket Division** 3M Center, Building 223-6N-01
Phone: 877-MMM-CARS (877-666-2277)

3M Fax on Demand Identification Number

Reference: Goto Ref

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