

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-268  
Relating to Exemptions Under Section 27156  
of the Vehicle Code

SOLAVITE NORTH AMERICA, LTD.  
SOLAVITE DEVICE

WHEREAS, Vehicle Code Section 27156 and Title 13 California Code of Regulations (hereafter "CCR") Section 2222(e), authorizes the California Air Resources Board (ARB) and its Executive Officer to exempt add-on and modified parts from the prohibitions of Vehicle Code Section 27156.

WHEREAS, Solavite North America, Ltd. has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for the Solavite device.

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Division by Health and Safety Code Section 39516 and Executive Order G-45-5, the ARB finds:

1. The Solavite device is an add-on device that is installed in the fuel line in a motor vehicle.
2. The fuel line is part of the required motor vehicle pollution control system.
3. The Solavite device is intended for use with a required pollution control system.
4. The Solavite device by being installed in the fuel line alters the original design of a motor vehicle pollution control system.
5. The Solavite device is a device subject to the prohibitions of Vehicle Code Section 27156 and an add-on part as defined by 13 CCR Section 1900(b)(1).
6. The Solavite device does not reduce the effectiveness of any required motor vehicle pollution control device.
7. The ARB, in the exercise of technical judgement, is aware of no basis on which the Solavite device will provide either a decrease in emission or an increase in fuel economy.
8. It has not been determined what effect use of the Solavite device may have on any warranty, either expressed or implied, by the manufacturer of a motor vehicle on which the device is installed.

9. The Solavite device is not a certified motor vehicle pollution control device pursuant to Health and Safety Code Section 43644.
10. The ARB by granting an exemption to Solavite North America, Ltd. for the Solavite device does not recommend or endorse in any way the Solavite device for emissions reduction, fuel economy, or any other purpose.

IT IS HEREBY RESOLVED that the Solavite device is exempt from the prohibitions of Vehicle Code Section 27156 for installation on all 1992 and earlier model-year gasoline and diesel powered vehicles subject to the following conditions:

1. This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.
2. No changes are permitted to the device as described in the application for exemption. Any changes to the device, applicable model year, or other factors addressed in this order must be evaluated and approved by the ARB prior to marketing in California.
3. Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in the Executive Order shall be prohibited unless prior approval is obtained from the ARB. Exemption of this product shall not be construed as an exemption to sell, offer for sale, or advertise any component of the product as an individual device.
4. Any oral or written references to this Executive Order or its content by the Solavite North America, Ltd., its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption it provides is not an endorsement or approval of any fuel economy or emissions reduction claims for the Solavite device and is only a finding that the device is exempt from the prohibitions of Vehicle Code Section 27156.
5. No claim of any kind, such as "Approved by the Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination after hearing that grounds for revocation exist.

Executed at El Monte, California, this 9th day of September, 1992.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

State of California  
AIR RESOURCES BOARD

EVALUATION OF SOLAVITE NORTH AMERICA, LIMITED'S SOLAVITE DEVICE  
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION  
27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE  
CALIFORNIA CODE OF REGULATIONS

September 1992

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AIR RESOURCES BOARD

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by

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(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

## SUMMARY

Solavite North America, Ltd. of 1772-J Los Arboles, Suite 108, Thousand Oaks, California 91362, has applied for exemption from the prohibitions in Section 27156 of the California Vehicle Code for the Solavite device. The device is designed for installation on all 1992 and older model-year gasoline and diesel powered vehicles.

Previously the Air Resources Board (ARB) exempted three similar devices; "Moleculator Fuel Energizer" by Internal Energy Mgmt. Corp., "Polarion-X" by AZ Industries., Inc. and "Vitalizer" by P.A.C.E. Setters of America. Based on the engineering evaluation of the Solavite device and exemptions issued for the devices that operate in a manner similar to the Solavite, the staff believes that the Solavite will not have any adverse effects on the exhaust emissions from gasoline and diesel powered vehicles.

The staff recommends that the Solavite device be exempted from the prohibitions in Vehicle Code Section 27156 and that Executive Order D-268 be issued.

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I. INTRODUCTION

Solavite North America, Ltd. of 1772-J Los Arboles, Suite 108, Thousand Oaks, California 91362, has applied for an exemption from the prohibitions of Vehicle Code Section (VC) 27156 for the Solavite device. The device is designed for installation on all 1992 and older model-year gasoline and diesel powered vehicles. The applicant submitted installation instructions and specifications of the device for our evaluation.

II. CONCLUSION

Previously, the Air Resources Board (ARB) exempted three similar devices; "Moleculator Fuel Energizer" by Internal Energy Mgmt. Corp., "Polarion-X" by AZ Industries., Inc. and "Vitalizer" by P.A.C.E. Setters of America. Based on the engineering evaluation of the device and the exemptions issued to other devices that operate in a manner similar to the Solavite device, the staff has determined the Solavite device will not have any adverse effects on the exhaust emissions from gasoline and diesel powered vehicles.

III. RECOMMENDATION

The staff recommends that Solavite North America, Ltd. be granted an exemption from the prohibitions in California Vehicle Code Section 27156 for the Solavite device and that Executive Order D-268 be issued.

IV. DEVICE DESCRIPTION

The Solavite device has a different model for gasoline and diesel. The gasoline device is approximately three inches long and 1 1/4 inches in diameter. For gasoline vehicle applications, the Solavite cell is encased in a plastic sealed cylinder with two nipples opposite each other for connection to the fuel line. The diesel device is approximately five inches long and 1 3/4 inches in diameter. For diesel vehicle applications, the Solavite cell is encased in an aluminum cylinder with a screw cap allowing replacement to the Solavite cell inside. There are two nipples opposite each other for connection to the fuel line. The Solavite cell is approximately 1 1/2 inches long and 3/4 inch in diameter. It consists of a copper cylinder containing the catalyst mixture. According to the manufacturer, the catalyst is a mixture of Carbon of Wheat, Salt and the Essence of vegetable oil.

The Solavite device is installed in the fuel line. The fuel flows into the device where, according to the manufacturer, the copper container acts as a porous conductor allowing the fuel to react with the catalyst.

V. DISCUSSION

Solavite North America, Ltd. claims that the Solavite, when installed on a vehicle's fuel line, chemically treats fluid hydrocarbon fuels. The manufacturer stated the device is configured so the catalytic cell acts upon the incoming fuel charge. The manufacturer also claims this device decarbonizes the engine, increases mileage, increases performance and cleans fuel lines, injectors, jets and nozzles. The ARB did not perform any testing on the device to substantiate the claims made by the manufacturer. However, it is the staff's opinion that the technical principles underlying the stated

function of the device are not capable of producing any effects on emissions or engine horsepower.

The ARB previously exempted three similar devices; "Moleculator Fuel Energizer" by Internal Energy Mgmt. Corp., "Polarion-X" by AZ Industries., Inc. and "Vitalizer" by P.A.C.E. Setters of America. Because of previous exemptions issued to similar devices with the same operating principle as the Solavite and the fact that qualifying for an exemption is based on not adversely affecting exhaust emissions, the staff recommends that Solavite North America, Ltd. be granted an exemption as requested.

APPENDIX



## SOLAVITE FOR GASOLINE OR DIESEL

In the treatment of gasoline or diesel SOLAVITE functions as catalyst, acting upon the molecular bonding of the hydrocarbons, causing their dispersion without altering the chemical properties of the fuel. This produces the following results:

- Decarbonizes the interior of the engine.
- Removes the black abrasive carbon deposits.
- Prevents new carbonization and does not allow sedimentation caused by the residues of the fuel in the carburetor, on the cylinder head, on the piston rings, valves or pistons.
- Improves fuel combustion and engine performance.
- Restores power to the engine.
- Extends the life of the spark plugs more than 50%.
- Extends the life of the engine.
- Stops engine from dieseling.

## INSTALLATION

Install SOLAVITE ahead of the fuel pump and downstream from the fuel filter when possible.

Cut the fuel line leading to the carburetor.

If the fuel line is neoprene, simply fasten the unit in with appropriate hose clamps. If the fuel line is metal, use two pieces of flexible tubing and hose clamps for installation.

## IMPORTANT

The device must be maintained in a horizontal position, parallel to the ground. The SOLAVITE gasoline apparatus lasts for one year. Remove the old unit and install a new one at that time.

The SOLAVITE diesel apparatus lasts 6 months. Clean the cell once a month with 320 wet/dry sandpaper until it's shiny. Install a new unit after the 6 months.



Right Position  
(Horizontal to the earth)



Wrong Position  
(Vertical to the earth)

## SOLAVITE FOR GASOLINE OR DIESEL

SOLAVITE is a physical catalyst. It is not a filter. It is not an additive. It is not an electronic device. It does not alter or substitute for the original components of the engine. It is not a fuel filter.

## SOLAVITE FOR RADIATORS

SOLAVITE is a physical catalyst that treats fluids in radiators. It does not add anything to or take anything from the fluid. SOLAVITE treatment causes the substances which form deposits in radiators and cooling systems to soften and then to be released from all surfaces. These released substances go into solution in the fluid and can then be completely flushed from the system. For as long as the treatment is used and the instructions are followed, SOLAVITE will produce the following results:

- The scale and deposits in the radiator and the engine cooling system will be cleaned from the interior surfaces.
- New scale and deposits will not form.
- The cooling system will be clean to perform per original specifications, without the harmful and expensive effects of deposit build-up such as reduced flow, hotter operating temperatures, potential overheating, etc.

- SOLAVITE does not cause corrosion.
- SOLAVITE treatment is not affected by anti-freeze or other coolant system additives.
- The cooling system may have potential leaks which are sealed by deposits. Be aware that leaks may occur in those locations when those deposits are removed.
- SOLAVITE treatment will cause the existing deposits to be released from the surfaces within the cooling system, but it will not remove the released deposits from the system. This must be done by flushing the system.
- Clean the cell once a month with 320 wet/dry sandpaper or coarse steel wool until it's shiny.
- The useful life of the cell is 11 months. Leave it in place for 11 months, then remove it. Operate without the cell for one month, then install a new cell.

## HOW TO USE

- CLEAN SYSTEMS.** Install SOLAVITE and enjoy the benefits of a clean cooling system with total confidence. Deposits will not accumulate. Flush the system once each year.
- LIGHT DEPOSITS.** Install SOLAVITE. After traveling 400 to 500 miles, remove the pressure cap and observe the condition of the deposits. They may be cleaned to bare metal. If this is the case, flush the system. Install new fluid and proceed according to "A" above. If deposits still remain, follow procedure "C" below.
- HEAVY DEPOSITS.** Install SOLAVITE. After traveling 200 to 300 miles, remove the pressure cap and observe the condition of the deposits and the fluid:
  - The deposits will have become soft and many of them will have been released into the fluid. Flush the system, replace the fluid, and continue with the treatment for another 200 to 300 miles. Repeat this procedure until the system is clean. Only rarely would more than two treatments be required.
  - Be alert to the operating temperature of the motor during this process. The deposits released into the coolant may cause it to become a thick slurry. This may cause overheating. If the operating temperature of the motor rises above normal, it is time to flush the system.

## INSTALLATION

CLEAN THE CELL WITH 320 WET/DRY SAND-PAPER AT TIME OF INSTALLATION.

- Remove the radiator pressure cap.
- Make sure the chain is secured to the cell and to the retention ring.
- Insert the cell so that it is positioned within the flow of the liquid (near the hose connection when possible). The cell can lie in any position.
- Adjust the retention ring so that it lies flat in the bottom of the pressure cap receptor.
- Replace the pressure cap. Occasionally, the thickness of the retention ring will prevent the pressure cap from seating. If this happens, a shallower cap must be used or the chain must be secured in another way to retain the cell.