

Client Alert

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Disabling an engine for the CARS program

Information about Sodium Silicate



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The final rules for the Consumer Assistance to Recycle and Save (CARS) act of 2009 were signed on July 23, 2009. The rules for this program, commonly known as "Cash for Clunkers," available [HERE](#), are quite involved and will involve several steps if your dealership is planning on participating. A lot of general information is available [HERE](#) for consumers and at [THIS LINK](#) for dealers, and in the information and registration package should have already received from the DOT. According to the final rule, letters were mailed to OEM franchised dealers with a code that allows for electronic registration into the program.

This client alert will focus on the engine disabling procedures outlined in the program. Specifically the chemical hazards and hazard communication requirements associated with introducing a new chemical into the workplace will be covered.

The "Engine Disablement Procedures for the CARS Program" on page 127 of the rule, and available [HERE](#), discuss the specific steps that need to be taken to disable the engine in a vehicle being traded in under the program. Step 1 of these procedures requires the use of Sodium Silicate, also known as "liquid glass." The Sodium Silicate solution required under this program should contain 40 % Sodium Silicate and 60% water and the sodium silicate should have a weight ratio greater than 3. This material can often be obtained from your detail chemical supplier, or from a variety of chemical supply companies and online vendors. It should be noted that using sodium silicate is the only approved method of disabling the engine.

Physical Properties of Sodium Silicate

You should consult the MSDS for the sodium silicate solution you choose, however here are some general physical properties of this material:

- Caustic, Corrosive solution with a pH of 11 - 13 similar to Ammonia
 - In comparison drain cleaner has a pH of 13 - 14
- Skin, eye and ingestion exposure will cause burns
- Flammability risk for this material is low
- Since it is a strong base, it will react with acids
- Prolonged exposure with metals in the liquid form will produce hydrogen gas
- Once hardened, the material will have very sharp edges like broken glass.
- The water in the solution will evaporate if the container is left open causing the material to harden.

Safety Precautions

- Gloves, Safety Glasses and Apron should be worn when using this material

- Heavy chemical resistant gloves are recommended for the liquid
- Leather gloves are recommended once the material is hardened to prevent cuts
- Ensure easy access to an eyewash station is available
- Never mix with other chemicals
- Run the vehicle immediately after pouring in the solution to prevent the buildup of Hydrogen gas.
- If eyes are splashed, rinse with water for 15 minutes and seek medical attention immediately.
- If body is splashed, remove contaminated clothing, rinse skin thoroughly and wash with non-abrasive soap.

Hazard Communication Requirements

Since you are introducing a new chemical into your dealership, you are required by the Hazard Communication Standard to inform and train your employees on its hazards. The first step is to ensure you have a Material Safety Data Sheet (MSDS) available for sodium silicate at all times. If you have not received it from your supplier, make sure you ask for one. There are also some MSDSs for Sodium Silicate on your MSDS online site. The MSDS there will provide all the information you'll need. You can log in by clicking on the "MSDS" link on you myKPAonline.com dashboard and then "Search All MSDS" for the product "Sodium Silicate." We are working to add all brands of sodium silicate to our database but the brand you purchased may not be available online. If you'd like to add your specific brand, you can add this product to your inventory by clicking the appropriate link.

Secondly, ensure you train your employees on the hazards and emergency response procedures outlined in the MSDS and in the above paragraphs before your employees begin working with this product. If you need more information, please contact your KPA consultant.

Disposal Information

Once the CARS program is over, the disposal of Sodium Silicate is fairly straight forward. By leaving the container open, the water in the solution will evaporate leaving a hardened material that can in many cases be disposed of as solid waste. Please check with your KPA consultant and your waste hauler for specific local information pertaining to your dealership.

The disposal of the vehicle, or engine is a lot more complicated. In short, you must ensure you transfer the vehicle to an authorized disposal facility, or salvage yard. The disposal facility will have to certify that they received the vehicle. You will need a signed certification for each trade-in vehicle. For more information on this process click [HERE](#).

Sodium Silicate can be a dangerous material to your employee's health if not handled properly. If you are planning on participating in the CARS program, properly training your employees is an important step in this process. As always, if you have any questions regarding this or any other environmental, health and safety issue, please contact your KPA engineer.

