



ISO 9001:2000 CERTIFIED

BAR'S LEAKS TECHNICAL BULLETIN

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Bar's Leaks DiFM
Rendering Chemical Sodium SilicatePart #: RC128,
RC640, RC7040

RENDERING CHEMICAL

40% Sodium Silicate / 60% Water

SiO₂ / Na₂O greater than 3.0

Bar's Leaks DiFM Rendering Chemical is a 40% Sodium Silicate / 60% Water solution with a weight ratio greater than 3.0 and specially designed to comply with the government CARS (Car Allowance Rebate System) formally known as the "Cash for Clunkers Program". The only approved use for this material is for rendering an engine inoperable when used in accordance with the Appendix B to Part 599 – Engine Disablement Procedures for the CARS program. Like all DiFM products this is intended for professional use only, and not to be used by consumers or for any other use.

SODIUM SILICATE (LIQUID GLASS)

PRODUCT PROPERTIES	TYPICAL VALUES
Na ₂ O, %	8.90
SiO ₂ , %	28.66
Weight Ratio, % SiO ₂ / % Na ₂ O	3.22
Specific Gravity, @ 20°C	1.394
Viscosity @ 20°C, Centipoise	177

PART NUMBER	RC128	RC640	RC7040
Bottle Size:	1 Gallon (3.79L)	5 Gallons, (18.92L)	55 Gallons (208.19L)
Case Pack:	4 bottles per case	1 pail	1 drum
Renderings Per Container / Case:	2 per bottle / 8 per case	10 per pail	110 per drum
UPC Item:	0 46087 00128 8	0 46087 00129 5	0 46087 00130 1
UPC Case:	1 00 46087 00128 5	N/A	N/A
Bottle Dimensions:	5.7 x 5.7 x 11	12.5 x 12.5 x 15	23 x 23 x 34.5
Bottle Cube:	357	2344	18251
Case Size:	12 x 12 x 12	12.5 x 12.5 x 15	23 x 23 x 34.5
Case Cube:	1728	2344	N/A
Case Weight:	46 pounds	58 pounds	630 pounds
Pallet:	TI 9 HI 3 Total 27	TI 9 HI 3 Total 27	TI 4 HI 1 Total 4
Pallet Height:	41 inches	50 inches	40 inches
Tariff Code:	2710.19.3020	2710.19.3020	2710.19.3020

Appendix B to Part 599 - Engine Disablement Procedures for the CARS Program
Engine Disablement Procedures for the CARS Program
THIS PROCEDURE IS NOT TO BE USED BY THE VEHICLE OWNER

Perform the following procedure to disable the vehicle engine.

Since the vehicle will not be drivable after this procedure is performed, consider where the procedure will be performed and how the vehicle will be moved after the procedure is complete.

1. Obtain solution of 40% sodium silicate/60% water. (The Sodium Silicate (SiO₂/Na₂O) used in the solution must have a weight ratio of 3.0 or greater.)
 2. Drain engine oil for environmentally appropriate disposal.
 3. Install the oil drain plug.
 4. Pour enough solution in the engine through the oil fill for the oil pump to circulate the solution throughout the engine. Start by adding 2 quarts of the solution, which should be sufficient in most cases.
- CAUTION:** Wear goggles and gloves. Appropriate protective clothing should be worn to prevent silicate solution from coming into contact with the skin.
5. Replace the oil fill cap.
 6. Start the engine.
 7. Run engine at approximately 2000 rpm (for safety reasons do not operate at high rpm) until the engine stops. (Typically the engine will operate for 3 to 7 minutes. As the solution starts to affect engine operation, the operator will have to apply more throttle to keep the engine at 2000 rpm.)
 8. Allow the engine to cool for at least 1 hour.
 9. With the battery at full charge or with auxiliary power to provide the power of a fully charged battery, attempt to start the engine.
 10. If the engine will not operate at idle, the procedure is complete.
 11. If the engine will operate at idle, repeat steps 6 through 10 until the engine will no longer idle.
 12. Attach a label to the engine that legibly states the following:

This engine is from a vehicle that is part of the Car Allowance Rebate System (CARS). It has significant internal damage caused by operating the engine with a sodium silicate solution (liquid glass) instead of oil.