

GM Odor Eliminator

DILUTION RATIOS

The unique properties of the GM Odor Eliminator formula allows it to be blended with other cleaning solutions making it even more effective on different odor sources.

Below is a list of recommended dilution ratios for the formula and examples of odor sources to combat.

Degreaser Formula:

The degreaser formula should be used on any greasy or grimy odor problem. Example: gasoline, diesel, oil etc. The objective is to breakdown the grease molecular structure allowing the GM Odor Eliminator formula to neutralize the odor source.

(Degreaser formula for spray bottle applications)

1. Find an empty quart bottle with a trigger spray head.
2. Put a drop of dish soap the size of a quarter in the bottom on the bottle (Dawn dish soap is preferred but any brand will work).
3. Add 16 oz. of GM Odor Eliminator (2 cups) to quart bottle and then top the bottle off with tap water.

Mop water

For mop water the recommended amount of formula is 12-16 ounces of formula for each gallon of soapy mop water.

Carpet and Upholstery Shampooing:

Shampooing of carpet and upholstered surface is an effective method for deep odor elimination. Pre-spray the carpet/upholstery surface first with the GM Odor Eliminator formula and shampoo as normal.

(Extracting machine)

1. Add 10-12 ounces of the GM Odor Eliminator formula into the soap solution reservoir along with your normal soap and water ratio.

(Wet-dry shop vac)

If using a shop vac for extracting, add 8 oz. to each gallon of soap solution within the bucket.

Laundry:

GM Odor Eliminator can be added to laundry to eliminate odors in clothing or shop rags. Experimentation is suggested since all wash machine sizes are different. General recommended amount is 2-4 oz. per load with normal laundry soap (add during wash cycle).

GM Odor Eliminator Interior Treatment

The following is a brief description of how many GM Odor Eliminator (#12378554) trigger pumps are needed for a basic interior vehicle odor elimination. This is only a guideline due to the fact that vehicle odor problems can be caused by many different odor sources and the severity of the odor problem varies in every case.

NOTE: The pump bottle should have the spray head set to the fan or wide spread pattern. Always brush formula into interior and carpets using brush or fingers tips.

- 1: Remove all items, trash, etc. and vacuum the interior before treatment
2. Spritz 2 pumps under the driver's side front seat
3. Spritz 4-6 pumps throughout the driver's side foot area
4. Spritz 2 pumps onto driver's side door area (upholstered)
5. Repeat on passenger side
6. Spritz 3-4 pumps onto dash area, wait 2 minutes and wipe dry
7. Spritz 4-5 pumps onto drivers seat (bucket seat)
8. Spritz 2-3 pumps onto driver's seat back
9. Spritz 2-3 pumps onto driver's side rear floor
10. Spritz 2 pumps onto driver's side rear door (upholstered)
11. Repeat for passenger side
12. Wash out the ash tray with soap & water and 2-3 pumps of formula
13. Spritz 3-4 pumps to rear window deck area, wipe down
14. Spritz 8-10 pumps onto headliner (from back to front of vehicle)
15. Spritz entire trunk area. (8-10 pumps)

The ventilation system is generally the last step in the treatment of the vehicle. The ventilation systems can be a major cause of odor problems.

1. Spray the GM Odor Eliminator formula into all dash vents. (**1-2 trigger pulls** per vent).
2. Start the vehicle and turn the vehicle fan on high cool (not A/C setting).
3. Spray the formula (**20 trigger pulls**) into the outside fresh air intake vent (cowl at base of windshield).
4. Enter the vehicle after 1 minute and wipe off the excess formula spurting out of the dash vents.
4. Smell the air coming from the dash vents. If odors are still present spray another **5-10 triggers** into the cowl, wait another minute and smell the results. Once you have obtained a fresh, clean smell coming from the vents turn the system to the A/C maximum or "re-circulation" setting. Roll-up windows, spray 3-5 pumps into the vehicle, shut door and let the vehicle run on A/C Max with the fan set on high for 5 - 7 minutes. Total amount of triggers for this step should fall between 10 and 30 ONLY.

Optional Step:

Once a surface area has been sprayed, using a brush to work it down deep into the carpeting or upholstery allows the formula to penetrate deeper into the surface.

When shampooing the interior of the vehicle, add 8-10 oz. of GM Odor Eliminator into the finished soap and water mixture. Lightly pre-treat area with GM Odor Eliminator and shampoo as normal

TOTAL TRIGGERS FOR INTERIOR= 60-80 PER VEHICLE

Trouble Shooting for Water Damaged Vehicles

Finding the odor caused by a water leak is harder then one would expect. Customary thinking is that when the leak in the vehicle is found so too is the odor source. In many cases this is correct, but not always. There are many variables to take into account:

How long has the leak been present?

Has the moisture "jumped" from the floor to the seats?

Has the moisture penetrated through the upholstery into the foam of the seats?

Water may leak into a certain vehicle model in the same area but never assume that the odor is confined to that area. Each odor problem is different from one vehicle to the next. Odors are gases and left untreated an odor that started in the trunk could work itself into the entire vehicle.

Below are some trouble areas and suggested treatments:

Trunk Leaks:

The spare tire is often overlooked. Treating the tire with the degreasing formula and power washing it clean will eliminate odors that are present in the tread pattern. If standing water has been present, in some cases the back seat foam needs to be treated (see below).

Sound Barrier (front firewall):

Poor windshield installation or under the dash water leak problems are tough odor elimination undertakings. The most common area for hidden odors up front in a vehicle is in the sound barrier attached to the firewall. The material that the barrier is made of acts like a wick and, with time, a water leak odor from the driver's side can migrate to the passenger side. Removal of the barrier and shampooing both sides should eliminate the odor. Follow Step 3 of the Water Damage Guideline page for procedure.

NOTE: Before installing the barrier back onto the firewall, lightly treat the firewall with the degreasing formula.

Deep Seat Penetration:

If after shampooing (Step 3 of the Water damage guideline) the odor returns, the problem is probably in the foam. The upholstery needs to be removed and the foam treated. Heavily spray the seat foam with *GM Odor Eliminator* (#12378554) then apply a coating of the degreaser formula on top of the *GM Odor Eliminator*. This treatment needs to penetrate into the foam. Squeezing and kneading the foam with your hands will result in penetration. Let dry completely, then smell the results. Repeat if necessary.

NOTE: Before you re-attach the upholstery, spray the inside of the upholstery with *GM Odor Eliminator*.

BASIC USED VEHICLE ODOR NEUTRALIZATION

Using GM Part # 12378554

(General guidelines for basic vehicle odor detailing, i.e., smoke, must and mildew)

The GM Odor Eliminator (GM Part # 12378554) is advanced science that emphasizes the simplicity of vehicle odor neutralization. GM Odor Eliminator formula is an "on contact" formula, if the formula makes contact with the odor source, the odor(s) will be neutralized leaving behind no smell of it's own (no scent). GM Odor Eliminator is ODORLESS and most detailing steps take only minutes to perform. Below are three basic steps that in most vehicle odor problems, are the only steps required to odor neutralize most used cars/trucks.

STEP ONE: (building a degreaser formula)

1. Find an empty quart bottle within the shop (requires trigger spray head).
2. Put a drop of dish soap the size of a quarter in the bottom on the bottle (Dawn dish soap is preferred but any brand will work).
3. Add 16 oz. of GM Odor Eliminator (2 cups) to the dish soap and top off the bottle with tap water.

NOTE: This formula is referred as the degreaser formula and should be used on hard surfaces such as the dash, interior plastic molding and leather seats.

STEP TWO:

The second step to neutralizing the vehicle is a light to medium treatment of all carpeting and upholstered (cloth) seats with the GM Odor Eliminator formula in it's pump bottle and a wide fan spray setting (i.e.: carpeting on the driver's side floor pan requires **6-8 triggers pulls** for coverage). The **headliner** and trunk should be sprayed next.

NOTE: Lightly brushing the formula into the carpeting and upholstery is a recommended step for deep odor problems. The dash and all hard surfaces should be sprayed with the degreaser formula. Let stand (dwell) for 1-2 minutes then wipe off the surface.

STEP THREE: (vehicle ventilation system treatment)

The ventilation system is generally the last step in the basic treatment of the vehicle. The ventilation systems can be a major cause of odor problems.

1. Spray the GM Odor Eliminator formula into all dash vents. (**2-4 trigger pulls** per vent).
2. Start the vehicle and turn the vehicle fan on high cool (not A/C setting).
3. Spray the formula (**20 trigger pulls**) into the outside fresh air intake vent (cowl at base of windshield).
4. Enter the vehicle after 2-3 minute and wipe off the excess formula spurting out of the dash vents.
5. Turn the heat/cooling system to the A/C maximum and engage "re-circulation" setting (fan-high setting). Roll-up windows, spray 8-10 pumps into the vehicle towards the headliner, close doors and let the vehicle run with the fan set on high for 5 - 7 minutes.

An 800 Tech support line has been set-up to assist you with any vehicle odor problems that you may have within your lot.

1-800-977-4145

THE NEUTRALIZING SYSTEM

(General guidelines for WATER DAMAGE/MUST MILDEW vehicle odor problems)

The ideal time to neutralize the odors in a water-damaged/must or mildewed vehicle is when the leak is being diagnosed and fixed. Finding and repairing the water leak generally requires that the vehicle get stripped down to the bare metal (carpet and seats removed). The most important aspect to the *GM Odor Eliminator* (#12378554) formula is that it must come in direct contact with the source of the odor. Having the seats and carpeting removed allows the formula to come in direct contact with all surfaces from the metal body to the back of the carpeting. This will assure a total odor neutralization process.

STEP ONE: (building a degreaser formula)

1. Find an empty quart bottle with a trigger spray head.
2. Put a drop of dish soap (the size of a quarter) in the bottom of the bottle (Dawn dish soap is preferred but any brand will work).
3. Add 16 oz. of *GM Odor Eliminator* (2 cups) to the soap in the quart bottle and top the bottle off with tap water.

NOTE: This formula is called the degreaser formula and should be used on hard surfaces and bare metal parts. Before installing the carpet and jute, a light spray of the floor metal with this formula is suggested (do not rinse or wipe off treatment).

STEP TWO:

The second step to odor neutralizing the vehicle is a light to medium treatment of all carpeting and upholstered seats with the *GM Odor Eliminator* formula in a pump bottle with a fan spray setting (i.e.: carpeting-driver side requires **4-5 triggers pulls** for formula coverage). The headliner and trunk should be sprayed next. **NOTE:** Lightly brushing the formula into the carpeting and upholstery is a recommended step for deep odor problems. The dash and all hard surfaces should be sprayed with the degreaser formula. Let stand for 1-2 minutes then wipe off the surface.

STEP THREE: (shampooing carpet and upholstery)

Since in most cases the carpeting has been pulled out of the vehicle to find the water leak, this is a perfect time to shampoo it. If you do not have a carpet/upholstery cleaner (extracting machine) a wet-dry shop vac will work.

1. Add 8 ounces (1 cup) of the *GM Odor Eliminator* formula into the soap solution reservoir (extracting machine) along with your normal soap and water ratio. If using a shop vac for extracting, add the 8 oz. to your bucket of soap solution.
2. Pre-spray the carpet first with the *GM Odor Eliminator* formula and shampoo as normal brushing the solution into the surface.
3. Flip over the carpet and follow the same procedure for the back of the carpeting. If the jute is attached to the carpet make sure that you get enough shampoo solution to penetrate the backside of the jute (the side facing the carpet). Hang or lay carpet out to dry.

NOTE: After the carpet is completely dry smell both the front and backside. If you smell no odor then you have odor neutralized the carpet. The odor will not return.

4. Follow the same procedure for upholstered seats and door panels (remember to always top dress the surface with the *GM Odor Eliminator* formula before shampooing).
5. Headliner: Headliners need only to be sprayed with the *GM Odor Eliminator* formula to neutralize the odor. A light brushing of the formula into the liner is suggested. In extreme odor problem vehicles the headliner should be shampooed. Use a bucket of soap solution with *GM Odor Eliminator* added. Dip a towel into the bucket and lightly ring dry. Carefully rub the towel over the entire headliner. This towel technique can be performed while headliner is still attached the roof of the vehicle.

STEP FOUR: (vehicle ventilation system treatment)

The ventilation system is generally the last step in the treatment of the vehicle. This is an important step as these systems can be a major cause of odor problems.

1. Spray all dash vents within the car with the *GM Odor Eliminator* formula to get the formula into the vents (**1-2 trigger pulls** per vent).
2. Start the vehicle and turn the vehicle fan on high cool (not A/C setting).
3. Spray the formula (**20 trigger pulls**) into the outside fresh air intake vent (cowling at base of windshield).
4. Enter the vehicle after 1 minute and wipe off the excess formula spurting out of the dash vents.
5. Smell the air coming from the dash vents. If odors are still present spray another **5-10 triggers** into the cowl, wait another minute and smell the results. Once you have obtained a fresh, clean smell coming from the vent turn the system to the **A/C max.** (or re-circulation) setting. Roll-up windows, spray 8-10 pumps into the vehicle and let the vehicle run with the fan set on high for 5 - 7 minutes.

The above procedure is the general step-by-step protocol for water damage vehicles. For normal vehicle neutralization i.e. converting a smoking vehicle over to a non-smoking vehicle, follow steps two and four. In some cases you may have to do step three (shampooing).

Twin Star's technical support is available for questions regarding *GM Odor Eliminator* and its application. Call (800) 977-4145 for help on application methods.