

## DIY Vinyl Record Cleaner Formulation

Diamond Cut Productions Audio Restoration software does an exceptional job of removing noise and distortion from old record recordings. Nonetheless, the first step in a record restoration process is to physically clean its recorded surfaces. The cleaner the surface, the better the final restoration product will be.

Surface cleaning can be performed using mechanical record cleaning machines (like a Keith Monks setup) or by using a manual process with a set of lint-free cloths to apply and remove the cleaning solution.

Originally posted on the Diamond Cut Productions user's forum by one of the company principals under the rubric of "Craig's Concoction" in 2006, here is a record cleaning formulation that has been developed and refined over time. Experience has shown that it is both economical and effective for cleaning vinyl records, whether they be LPs, 45s, or 1950s vintage non-shellac based 78s. This formulation is not intended to be used on shellac, wax, Edison Diamond Discs or acetate based records.

You should only endeavor to create this solution if you are comfortable and experienced working with chemical formulations.

**Procurement of Ingredients and Tools:** All of these ingredients and tools can be purchased from a supermarket and should be stored away from children and pets.

-----

### Ingredients:

1. Two Gallons of Steam Iron Water (one of these is the base of the formulation and consists of distilled water and the other gallon will be used as your "rinse".)
2. 70 % Isopropyl Rubbing Alcohol (part of the emulsifier)
3. Automatic Dishwasher Cleaning Liquid {(Like "Cascade Complete Gel" brand - - - be sure that you DO NOT use the type that includes chlorine bleach as an ingredient) (this is part of the surfactant)}.
4. Antibacterial Liquid Hand Soap such as "Softsoap" made by Colgate-Palmolive (this is the Antimicrobial agent and another part of the Surfactant)
5. A Small amount of Prestone anti-freeze or equivalent (this is the other part of the Emulsifier)\*

\*Note: Prestone Antifreeze consists of Ethylene Glycol and Diethylene Glycol and are toxic to humans and pets:

Material Safety Data Sheets & information for the chemicals used in this formulation (MSDS or SDS):

- Ethylene Glycol (part of the Prestone anti-freeze) (MSDS 107-21-1)
- Diethylene Glycol (part of the Prestone anti-freeze) (MSDS 111-46-6)
- Distilled Water (Not classified as hazardous)
- Cascade Complete Gel (9533312\_RET\_NG)
- 70 % Isopropyl Alcohol Sparhawk Laboratories (MSDS 173.118)
- Colgate-Palmolive Anti-bacterial Liquid Hand Soap (SDS Number: 660000000608)

-----  
**Tools / Utensils:** Clean measuring teaspoon, measuring cup, protective gloves, small plastic funnel, permanent marker, spray bottle

**Initial Preparation:** Using the permanent marker, label one of the gallon bottles of distilled water “**Record Cleaner Solution**” and label the other gallon bottle “**Rinse**”.

**Recipe:** (This produces 1 gallon of Record Cleaning Fluid)

(Handle these ingredients with protective gloves)

1. Remove 1/2 of a cup of water from the Gallon of Distilled Water labeled “**Record Cleaner Solution**” and discard. All of the following ingredients are added to the remaining distilled water in this 1 gallon container via a plastic funnel.
2. Add 3 Teaspoons of Prestone Anti-Freeze to the Water.
3. Add 4 Teaspoons of 70% Isopropyl Rubbing Alcohol to the mixture.
4. Add 3 Teaspoons of “Cascade Complete Gel” Automatic Dishwasher Liquid to the mixture.
5. Add 3 Teaspoons of “Softsoap” Liquid Antibacterial Soap to the mixture.
6. There should be a small (1.5 inch) space at the top of the bottle to allow for liquid expansion and contraction.
7. Put the cap back on the solution bottle.
8. Shake thoroughly for 1 minute.
9. Let it settle for one hour.
10. Shake the solution again.
11. Transfer some of the record cleaning solution to a clean sprayer bottle and label it “Record Cleaning Solution”.
12. Clean all of your tools/utensils thoroughly before storing them away.
12. Done

**Note:** Store the solution at temperatures between 40 to 90 degrees F. Keep the bottle-cap on tightly when not in use. Keep out of the reach of children and pets.

**WARNING:**

**THIS FORMULATION IS MADE FROM INGREDIENTS THAT ARE TOXIC TO HUMANS AND PETS. BE CAREFUL IN HANDLING THESE INGREDIENTS BY AVOIDING SKIN CONTACT AND KEEP ALL OF THEM OUT OF THE REACH OF CHILDREN. DO NOT DRINK THIS SOLUTION OR ANY OF ITS CONSTITUENT COMPONENTS.**

We offer no guarantees as to the effectiveness of this formulation in its stated application. The user assumes all liability associated with its use.

To use this formulation in a record cleaning machine, pour the prescribed amount into the unit’s reservoir and then simply follow the directions provided by the manufacturer of the machine. To use this solution manually, apply the

solution with a lint free cloth or (directly via the spray bottle) to one side of the record and let it set for 5 minutes. Then, remove the formulation with a clean dry cloth and then rinse the record with the distilled water labeled “**Rinse**” via a cloth to remove any residue of the formulation from the record surface. Do not get any solution or distilled water on the record label, as they can damage it. Repeat the process on the flip-side of the record.

**Test:**

Here is a test that you can perform. Clean one side of a dirty record with distilled water. Then, clean the other side with the record cleaner solution and observe the difference in the way that the two surfaces compare with one another.

1. The side cleaned with distilled water may still have some smudges and fingerprints on it after the cleaning while the side cleaned with the solution will not. The record cleaner solution completely cleans the record.
2. Notice that the distilled water side "beaded up" and "puddled" on the record while the record cleaner solution did not. The reason for that is due to the higher surface tension of the cleaner solution compared to the straight distilled water.
3. The record cleaner solution did not leave behind any apparent residue. The distilled water probably did not leave behind any residue either, but it left behind a lot of dirt. It is advisable to rinse the record with distilled water after cleaning with the cleaning solution, just to be sure that any residue from the cleaning solution is removed from the record surfaces.

Try it; it is inexpensive to make and seems to be effective at removing dirt and grime from Vinyl records as reported by many of our customers.

**Note:** Extremely dirty records may benefit from a single play of both sides after cleaning but before actual final transfer to your computer. After cleaning and playing the record once, repeat the cleaning process if you notice that your stylus has become clogged with dirt.



Copyright © 2006 - 2019, Diamond Cut Productions, Inc.