



HT Decontamination

Goal of HT Environmental Decontamination:

1. Kill environmental pathogens and spores with silver peroxide (killing pathogen will release more toxins in your environment)
2. Break down HT, toxins and VOCs with Enzyme Complete and silver peroxide (even the degraded particles of toxins will still cause immune activation).
3. Chelate the metals and bind the toxins with zeolite(Odorzout), Emeramide(NBMI), oxalates (Bar Keeper Friends), and quaternary ammonium compound(Steramine) .
4. Remove all the particles/dust on item or dwelling after fogging/spraying. If dust/particles cannot be removed on porous items, the nonporous item, maybe hard to save.
5. Repopulate with healthier microbiome with EM-1 and Enzyme Complete.
6. Use readily available and affordable materials for decontamination.

Materials Needed:

5 Hand Pump Sprayers (~\$10's each)

https://www.homedepot.com/p/HDX-1-Gal-Sprayer-1501HDXA/307766754?MERCH=REC--PIPHorizontal2_rr--307766539--307766754--N

Paper Towel (get many rolls)

Microfiber Towels: Some are contaminated, so be careful which brand you use. Please evaluate the microfiber before purchase.

<https://www.amazon.com/Quickie-49024RM-Microfiber-Towel-24-Pack/dp/B005BGCI8K>

Later on, you may want to invest in the following to decontaminate larger areas.

Silver Bullet Fogger (~\$180)

https://www.amazon.com/SILVER-BULLET-NON-THERMAL-FOGGER-MOSQUITO/dp/B00VMGSHIS/ref=asc_df_B00VMGSHIS/?tag=hyprod-20&linkCode=df0&hvadid=167152392179&hvpos=1o1&hvnetw=g&hvrand=3144974006186989710&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmld=&hvllocint=&hvllocphy=9002282&hvtargid=pla-332205917674&psc=1

Dehumidifier (~\$200-300) Any will do.

Back Pack Sprayer (~\$60)

https://www.amazon.com/Chapin-International-61800-Backpack-Translucent/dp/B000UEMJ3W/ref=pd_lpo_vtph_86_bs_t_1?encoding=UTF8&psc=1&refRID=RENY3MM5879Q7KE2ZT45

5 Decontamination Solution for cleaning objects and hard surfaces:

1. First Solution: Silver Peroxide.

Silver peroxide will kill the pathogens as well as degrade many of the biological toxins. Really good for indoor toxins as well as outdoor cyanotoxins. (Madonna Ramp has a protocol, and there are many other protocols online for fogging hydrogen peroxide for both indoors and outdoors)

Purchase 35% Hydrogen Peroxide (local hydroponic stores, ~\$35/Gallon) You will dilute this to approximately 6% prior to use.

Combine the 6% peroxide with colloidal silver. Silver is a stabilizer and activator of hydrogen peroxide. Silver activates the hydrogen peroxide in the presence of organic matter. Here is a PDF link about silver peroxide.

<http://www.silverperoxide.com/Brochure%20silver-%20peroxide.pdf>

Colloidal Silver (Any Colloidal Silver will do—but, here is an example of Colloidal Silver that Walmart carries for \$20)

You will add approximately 5-10 cc's of colloidal silver per gallon of 6% silver peroxide.

https://www.walmart.com/ip/Total-Resources-Intl-Silver-Biotics-Immune-Booster-16-Oz/763755708?wmlspartner=wlp&selectedSellerId=0&wl13=2057&adid=2222222227134901501&wl0=&wl1=g&wl2=c&wl3=242036164011&wl4=pla-395862370206&wl5=9002282&wl6=&wl7=&wl8=&wl9=pla&wl10=8175035&wl11=local&wl12=763755708&wl13=2057&veh=sem&gclid=CjwKCAiAqt7jBRACeIwAof2uK9RNnTSbkIp3FWBly2OV1StlXIGYDNIngcnPfP1cUW0jiu-huFM2nxoCetAQAvD_BwE

2. Second Solution: Bar Keepers Friends (can find locally in supermarkets, buy two powdered containers, inexpensive)

Oxalic acid binds toxins, including copper, and various toxic metals. But it seems to bind the Walmart, Target, and Costco HT well. Not sure why, but, other metal chelators do not seem sufficient, and adding Bar Keepers Friend seems to immediately remove a portion of the toxicity. Even though Bar Keepers Friend has toxic additives like a Benzene Sulfonate, I have found it irreplaceable to the protocol. Bar Keepers Friend does something different than spraying with EDTA, DMSA/DMPS, ALA, Emeramide, and Microsilica. Even with those chelators, you will need to use Bar Keepers Friend for the environment.

https://www.amazon.com/Bar-Keepers-Friend-Action-Cleaner/dp/B00CVVGY1A/ref=sr_1_3?keywords=bar+keepers+friends&qid=1551380364&s=home-garden&sr=1-3

Add 2 table spoon of powdered Bar Keepers and Friends to a gallon of water and mix into the spray pump. Because of the chemical toxins and VOCs, PLEASE be careful using Bar Keepers and Friends. I'm using Bar Keepers and Friends despite the MCS issue, because I have yet to find something that works better for certain HT strains found in Walmart/Costco/Target.

3. Third Solution: Steramine—quaternary ammonium compound tablet. 2 tablet per gallon. (~9\$ for

150 tablets)

QUATS are the best biological toxin binders per Dr. Shoemaker. Steramine is a stronger binder of biological toxins than Downey. Works well to bind the portion of HT that is related to biological toxins. If you find that Steramine helps, you should be on an oral or rectal bile resin binder like CSM (cholestyramine) binder.

<https://www.amazon.com/Steramine-Quaternary-Sanitizing-Tablets-Sanitizer/dp/B000W09SF6>

QUATS are toxic. You need to spray on objects that you can wipe down or wash out. Add 2 tablets for each gallon of water and put into the hand pump sprayer.

4. Fourth Solution: Odorzout Laundry Powder(~\$15)

Zeolite powder(from volcanic rock stone, aluminum silicate) that can be put into a hand pump sprayer. Zeolite and Bar Keepers Friend seem to have a synergistic effect in binding metals and toxins. One caution, zeolite, when pulverized may release aluminum—and those cheaper zeolites contain aluminum and silica at a 1:1 ratio. You may use Zeobind from Biopure instead which has a 1:6 ratio of aluminum to silica. But for the purposes of environmental decontamination, I am focusing on readily available and affordable products. Zeolite is a metal binder as well as various toxins. Bar Keepers Friends and Zeolite seem to function well synergistically. Based on several research studies I reviewed, aluminum seems to be bound by the oxalic acid in Bar Keepers Friends. Bioenergetic testing seem to confirm that finding.

https://www.amazon.com/ODORZOUT-Laundry-Additive-Powder-Bottle/dp/B002YD7WHU/ref=sr_1_2?keywords=Odorzout&qid=1551402980&s=gateway&sr=8-2

Mix two tablespoon per of Odorzout into a gallon of water into the hand pump sprayer.

5. Fifth Solution: Enzyme Komplete (1 liter, \$45) and EM-1

Enzyme Komplete will further metabolize any biological toxins and synthetic toxins quickly. In particular, it also may decontaminate glyphosate, pesticides, and various biological toxins. Enzyme Komplete also has quorum sensing capacity stimulating the growth of healthy microbial environment. EM-1 can be used to repopulate the microbial environment, the same way you would use probiotics for your intestines. Use EM-1 for your environment. EM-1 works more slowly, so one should combine the two to maximize the impact.

https://www.amazon.com/dp/B01JHEXSNU/ref=twister_B01JHEXTC0?encoding=UTF8&pvc=1

<https://www.amazon.com/TeraGanix-EM-1-Microbial-Inoculant-gal/dp/B009DI4TOC>

1 part Enzyme Komplete to 10 part water.

1 part EM-1 to 10 parts water.

13 ounces(1.5 cups) of Enzyme Komplete + 13 ounces(1.5 cups) of EM-1 into one gallon of water mixed in the hand pump sprayer.

Additional Materials to purchase for the washer

Downey Liquid Fabric Softener Free and Gentle

[https://www.walmart.com/ip/Downy-Free-Gentle-Liquid-Fabric-Softener-90-](https://www.walmart.com/ip/Downy-Free-Gentle-Liquid-Fabric-Softener-90-Oz/16816401?wmlspartner=wmlpa&selectedSellerId=0&wl13=2057&adid=2222222227000000000&wl0)

[Oz/16816401?wmlspartner=wmlpa&selectedSellerId=0&wl13=2057&adid=2222222227000000000&wl0](https://www.walmart.com/ip/Downy-Free-Gentle-Liquid-Fabric-Softener-90-Oz/16816401?wmlspartner=wmlpa&selectedSellerId=0&wl13=2057&adid=2222222227000000000&wl0)

[=&wl1=g&wl2=c&wl3=42423897272&wl4=pla-51320962143&wl5=9002282&wl6=&wl7=&wl8=&wl9=pla&wl10=8175035&wl11=local&wl12=16816401&wl13=2057&veh=sem&gclid=CjwKCAiAq7jBRACiEiwAof2uK6jLMKbuihi4ULKCPHjvigWDGt9AAs0zTeJFWnl8e9UvkAg0_zjOvhoCNEoQAvD_BwE](https://www.walmart.com/ip/Downy-Free-Gentle-Liquid-Fabric-Softener-90-Oz/16816401?wmlspartner=wmlpa&selectedSellerId=0&wl13=2057&adid=2222222227000000000&wl0)

EMERAMIDE may be needed for certain HT strains (HT2)

Certain HT Strains WILL need Emeramide to fully decontaminate. I put it last, because it is expensive, but I find it still essential for various HT strains. Emeramide seems to work much better than IMD/Microsilica to decontaminate the environment.

6. Six Solution: Emeramide. Mix 1 gram per gallon. You need to use a mortar and pestle and finely grind the Emeramide. Smaller spray bottles will get clogged, but the larger hand pump sprayers and the foggers typically function well with Emeramide.

Emeramide permanently chelates heavy metals. All other chelators are weak chelators and will not permanently bind to the metals. I have found Emeramide to be essential for certain strains of HT.

<https://medkoo.com/products/7797>

They will only sell it to a business. You are using it for environmental/soil decontamination/chelation. You should e-mail them your CC information and request 10 grams (~\$250). In the email, include shipping address, business name, and payment information. You do not need to include anything else.

First Step: Experiment with decontaminating a nonporous item first.

The first five steps should be enough, never perfect, but likely enough.

But for some HT, you will need step 6-Emeramide.

1. Spray the item with the silver peroxide spray. Evaluate your response. If the item is still bad, please go to the next step. (wear protection, goggles, gloves, and P95 mask)
2. Spray the item with a Steramine: quaternary ammonium compound. THIS IS TOXIC. So wipe and clean carefully, while wearing gloves. QUATS bind mold toxins. After wiping, evaluate your response. If item is still bad, please go to the next step.
3. Spray the item with the Bar Keepers friend. And wipe down. Evaluate your response. If item is still bad, please go to the next step.
4. Spray with Odorzout Zeolite. Evaluate your response. If item is still bad, please go to the next step.
5. Spray the item with Enzyme Complete and EM-1. Evaluate response. (EM-1 requires time to decontaminate)
6. Spray the item with Emeramide. Wipe Down. Evaluate response.

Often, all parts of the protocol is required to fully decontaminate. But sometimes, you may get by, with doing only a part of the protocol. For example, if silver peroxide is sufficient to decontaminate an item, you do not need to use the other steps of the protocol. Again, there are many different types of HT toxin. And, each may require a different combination of protocols to decontaminate. You may notice that each step makes the item feel better. So I personally recommend doing all the steps.

Protocol for larger spaces: Indoors, Cars, and Contaminated Outdoors.

Doing larger areas, you will want to invest in the Silver Bullet Fogger and a 4 gallon back pack sprayer, which allows you to spray larger areas (Silver Bullet Fogger).

Silver Peroxide Protocol

Fill the Silver Bullet Fogger with 6% hydrogen peroxide and add 5 cc's of colloidal silver. NEED

PROTECTION. Wear gloves and preferably a painters suit, goggles, and at least a P95 mask. Place the machine in the corner of the room point the fogger at the middle of the room, and let it run for 15 minutes. Please DO NOT be in the room. After 15 minutes, return go to the next step of the protocol. If you are spraying a lot, just point the fogger in the area that you want to decontaminate.

Hydrogen Peroxide will degrade the rubber components of the Silver Bullet Fogger, giving you only about 6-7 uses before you need to purchase another machine. Therefore, I typically save the silver bullet fogger for spraying Odorzout, Emeramide, and EM-1/Enzyme Komplete. I use the back pack sprayer or other hand pump sprayer for the silver peroxide in order to save the Silver Bullet Fogger from breaking down. However, spraying silver peroxide with a pump or back back sprayer WILL EXPOSE you to hydrogen peroxide. YOU MUST wear goggles, painters suit, gloves, and P95 mask.

For INDOORS, you will want to use a Dehumidifier. Typically they cost \$200s. Hopefully you already have a dehumidifier. Please turn on the dehumidifier when you are doing the fogging protocol. THE DEHUMIDIFIER MACHINE, even if contaminated, will be decontaminated by the protocol. **If you have CARPET, you will likely not be able to save the space from HT. So indoor treatments work best for hard nonporous floors that can be wiped clean. So, the best chance you have is to treat the carpet, vacuum, treat again, and cover it with the polyethylene sheet.**

USE THE BACK PACK SPRAYER OR HAND PUMP SPRAYER FOR THE FOLLOWING if you want to save the Silver Bullet Fogger. If that is not a concern, please use the Fogger for ALL STEPS of the Protocol. Following is what I recommend IF you want to save the Silver Bullet Fogger.

1. Silver Peroxide. Back pack sprayer or hand pump sprayer.
2. Steramine: IT'S A TOXIN, so you want to make sure you spray the floors and areas that you CAN FULLY WIPE DOWN. So use the hand pump sprayer to spray areas/floors and objects in the room that can be fully wiped down.
3. Bar Keepers and Friends. IT'S A TOXIN, so you want to make sure you spray the floors and areas that you CAN FULLY WIPE DOWN. So use the hand pump sprayer to spray areas/floors and objects in the room that can be fully wiped down.

USE THE SILVER BULLET FOGGER FOR THE FOLLOWING (if you want to save your money, spray with the hand pump sprayer—it just takes more time)

4. Odorzout.
5. EM-1/Enzyme Komplete
6. Emeramide

Once you fog/spray down the room with the first FOUR steps, please WIPE DOWN THE entire room. Please use the paper towels and wipe down everything in the room. Once the paper towel is wet, please throw away. You will use LOTS OF paper towel. About 3-4 paper towel rolls for each room. YOUR GOAL is to remove as much dust/particles with the paper towel. So once wet, PLEASE throw away.

Next, fog the place with Emeramide in the Silver Bullet Fogger. Add 500 mg of Emeramide, finely grounded in a mortar and pestle into the Silver Bullet Fogger and fog the entire room. YOU DO NOT need to fog it for 15 minutes. This time, you can fog for 5 minutes, and wipe the place down with the microfiber towels. You will use LOTS of microfiber towels. Once wet and covered, you should throw

away the microfiber towel. You CANNOT reuse it by washing it.

Once you are done wiping the place down again, you can now use the sprayer or Silver Bullet Fogger to spray Enzyme Complete and EM-1. You DO NOT need to wipe down the Enzyme Complete or the EM-1.

Car/RV/Cargo Trailer

Use the same protocol. You will not be able to wipe off the Bar Keepers and the Steramine if you have porous fabric and carpet in your vehicle/RV. I still recommend using it, but YOU MUST test out your individual tolerance. HT typically is worse than the toxicity of Bar Keepers Friend and Steramine. Again, individual tolerance is the key. But if you are in a position where you may be selling the vehicle/RV because of HT contamination, I recommend decontamination with the 6 step protocol before making the decision to get rid of the car/vehicle/cargo trailer/RV.

Laundry Decontamination

Heavily contaminated items, you should throw out.

For light to moderately contaminated items, please follow the following instructions.

Spray it with hydrogen peroxide first.

Spray the item with Steramine (if moderately contaminated).

Powder each item with Odorzout and Barkeepers before putting it in the washer.

Add Downey Free and Gentle fabric softener to the washing cycle (NOT the rinsing cycle).

Add your choice of non-scented detergent and wash.

Once washed, please evaluate the clothing to make sure they feel fully decontaminated. If they are toxic, you should experiment with fogging the clothing with Emeramide, Hydrogen peroxide as well as Steramine once again, and repeat the above steps.

If the items of clothing feels good, please add a teaspoon of Odorzout to the dryer with the wet clothing. You only need to sprinkle the top of the load of clothing with the Odorzout.

If you feel the dryer is contaminated, please use a wet towel, and cover the towel with all of the 5 different sprays/powders (Silver Peroxide, Steramin, Odorzout, Bar Keepers Friend and Emeramide). Let the wet towel covered in the five decontamination solutions in the dryer. Remember to treat the laundry room with the decontamination protocol, so that the air going into the dryer is NOT contaminated.

Mattress

Mattress CANNOT be saved, but you should always try doing the 6 step protocol.

You maybe able to reduce the reactivity enough with the 6 steps and cover the mattress with a 6 mm polyethylene sheet.

You should cover all your mattress, pillows, etc. with the following. After covering with the polyethylene sheet, you can cover it with your preference of bedding/sheets.

<https://www.homedepot.com/p/HDX-10-ft-x-25-ft-Clear-6-mil-Plastic-Sheeting-RSHD610-25C/204711657>

Bedding

Pillow CANNOT be saved. So please use a rolled up towel that can be washed as an alternative pillow. Thick comforters CANNOT be saved, unless only superficially contaminated. But, you may try to save your comforters with the method above. But if you cannot save it please throw it out.

Maintenance

You WILL likely self-contaminate your bedding and your mattress.

Treat your bedding every morning with the following solutions. (You need your bedding to DRY before sleeping in it again)

Spray with Silver Peroxide, Odorzout, and Enzyme Komplete/EM-1. Do not drench your bedding.

Superficially spray the solutions on your bedding. Check your reactivity to your bedding. If still reactive, please spray with Steramine. If the reaction is removed, then put the bedding only into the DRYER. You don't need to wash it again. The dryer will sufficiently remove the Steramine. However, if Steramine was not enough, you should spray with Bar Keepers Friend. But, once you spray Bar Keepers (pH 1.5) YOU WILL NEED TO wash it again using the laundry protocol.