MSGold

Best hygiene products
in livestock farming

What is historical pollution?

And how do you get rid of it?

After each round the housing needs to be cleaned and disinfected to remove organic and inorganic pollution. Static pollution is what remains after neglected washing or after using a poor or low quality detergent. For example, if during cleaning only 99% of the pollution is removed, the remaining 1% is what we call static pollution. When static pollution is allowed to build-up round after round, multiple layers of pollution will form on top of eachother. This build-up is what we call historical pollution.

Histocial pollution becomes increasingly problematic and difficult to remove if no measures are taken. The layers of pollution form a breeding ground for pathogens and can negatively impact animal health and performance.

Everything spotless and clean

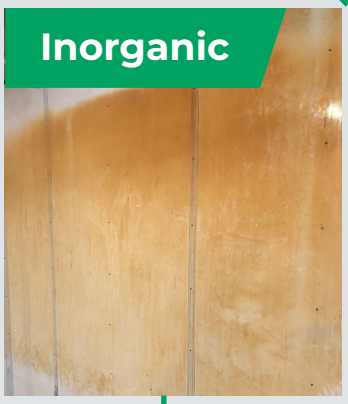
STEP 1.

Recognizing pollution

TYPES OF POLLUTION

Organic

Inorganic



- Manure
- Feed
- Skinfat
- Iron
- Lime / calcium

Water, Minerals, Proteins, Fats

Use **alkaline** foam cleaners to remove organic pollution.

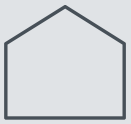
Use **acidic** foam cleaners to remove inorganic pollution.

What is the **category** of contamination? (0-3)

Category 0, 1, 2: Continuous cleaning program

Category 2, 3: Knockdown cleaning program

Cleaning before disinfection

Immediately after emptying	After pressure washing	Most important step After cleaning with detergent	After disinfection
			
50,000,000 pathogens/cm²	**20,000,000** pathogens/cm²	**100,000** pathogens/cm²	**<500** pathogens/cm²

Static pollution not only contains pathogens but is also a food source for microorganisms and a barrier for disinfectants!

Cleaning exposes pathogens.

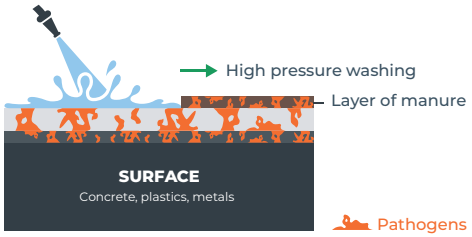
Using a detergent in step 2 is necessary to effectively apply a disinfectant.

When no detergent is used, a layer of fats and proteins will remain on the surface. This layer functions as a barrier that stops disinfectants from reaching all the pathogens.

To ensure a germ-free surface follow step 1 to 3 and use the right products.

Follow the steps below to effectively remove pollution.

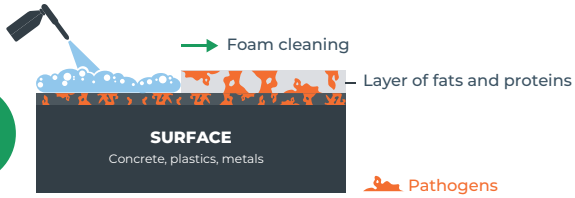
STEP 1



High pressure washing with water

Prepares the surface for cleaning with a detergent by removing manure.

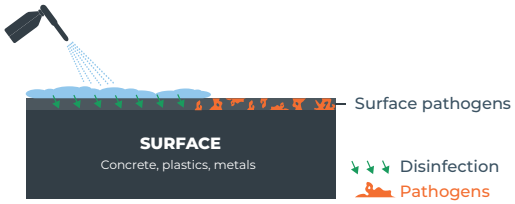
STEP 2



Cleaning with MS TopFoam

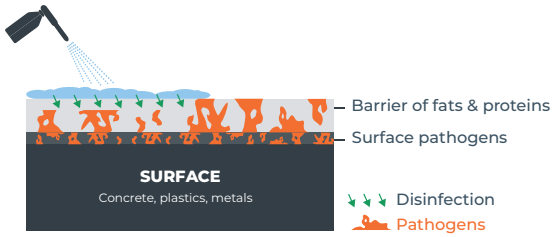
Prepares the surface for disinfection by removing the protective barrier of fats and proteins.

STEP 3



Disinfection with MS MegaDes Novo

Creates a germ free surface by and kiling remaining pathogens.



Ineffective disinfection

A thin layer of fats and proteins can form a protective barrier on top of the pathogens. The disinfectant is therefore unable to reach the pathogens on the surface.

STEP 2.

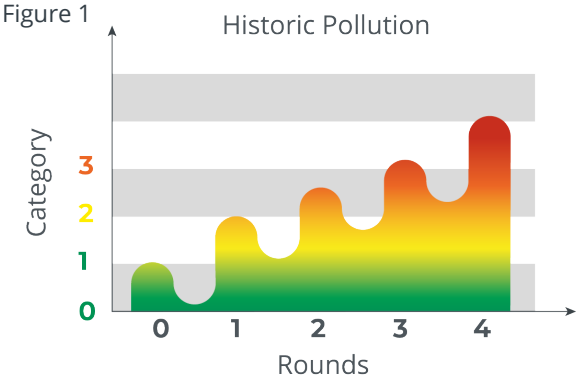
Do you have historical pollution?

How do you know whether you are dealing with historical pollution?

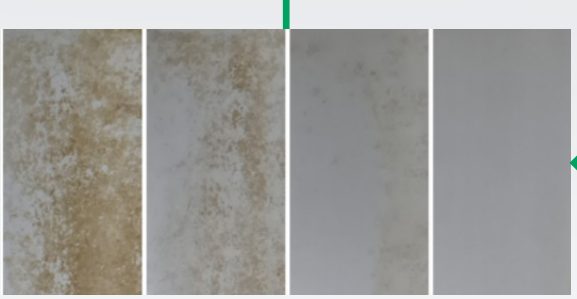
Historical pollution is most easily spotted directly after the washing procedure. If there is a clearly visible layer of contamination remaining after cleaning, you are dealing with historical pollution.

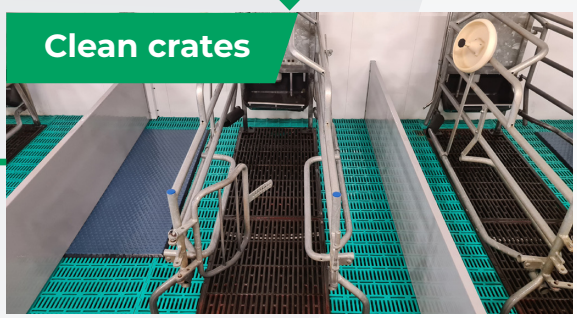
Figure 1 shows how neglected washing or using the wrong products can lead to a build-up of historical pollution. Without a proper protocol, farms can quickly go from catergory 0 to category 4.

Figure 1



POLLUTION IN PIG FARMS





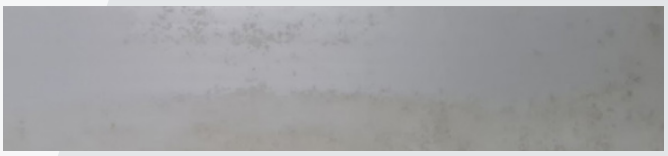
Historic pollution is the result of multiple insufficient washing rounds

Differentiating between different types of historical pollution.

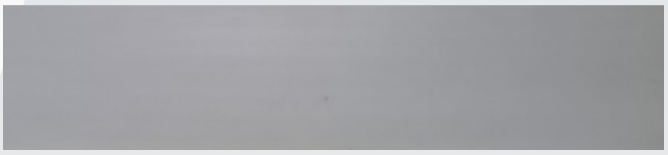
ORGANIC (Alkaline cleaners)

Category 3 - Heavy organic pollution

Category 2 - Medium organic pollution



Category 1 - Light organic pollution



Category 0 - Zero historical pollution

INORGANIC (Acidic cleaners)

Category 3 - Hydrated lime pollution

Category 2 - Mixed pollution

Category 1 - Iron pollution

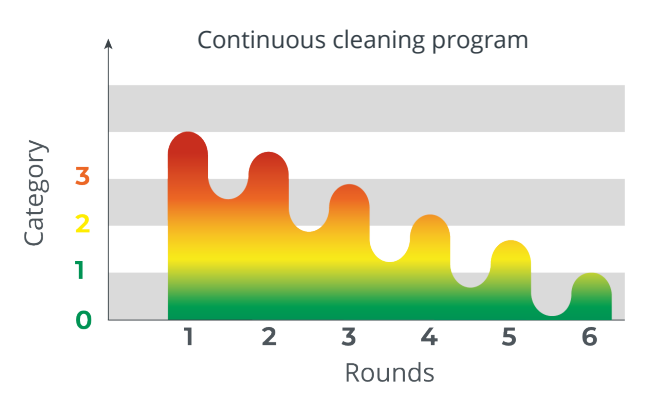
Category 0 - Zero historical pollution

STEP 3a.

How to remove organic pollution?

OPTION 1
Continuous cleaning program

Every round a step closer
MS TopFoam Power

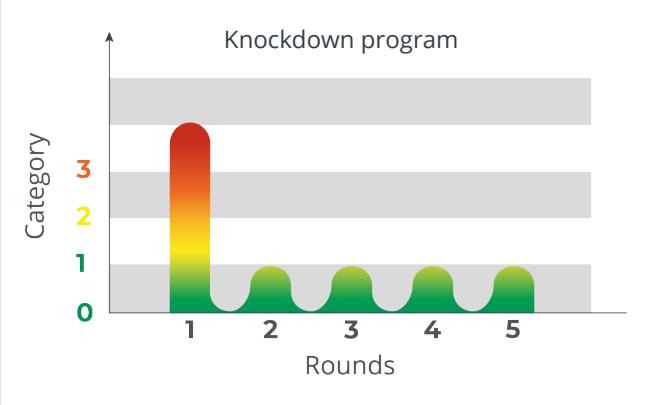


Application Instructions

- First remove heavy soiling
- Use a 1-3% product
- Apply product with cold water, aiming for the consistency of shaving cream
- Soaking time: min. 30 - max. 120 minutes
- Wash with hot or cold water

OPTION 2
Knockdown program

Reset to category zero
MS Reset Acid



Application Instructions

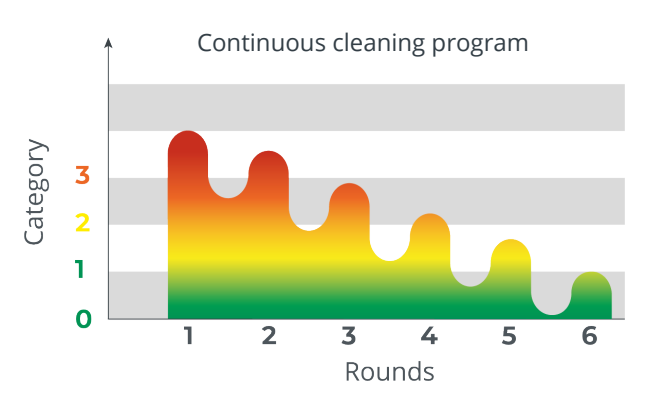
- Apply the product through a hand or backpack sprayer
- Use a 100% concentration, no pre-dilution required (preferably through a MS Greenline)
- Let it soak for 5 minutes and then pressure wash clean
- A thick layer of historical pollution might take multiple applications to get through the entire layer

STEP 3b.

How to remove inorganic pollution?

OPTION 1
Continuous cleaning program (only for Iron)

Every round a step closer
(MS TopFoam LC Acid)



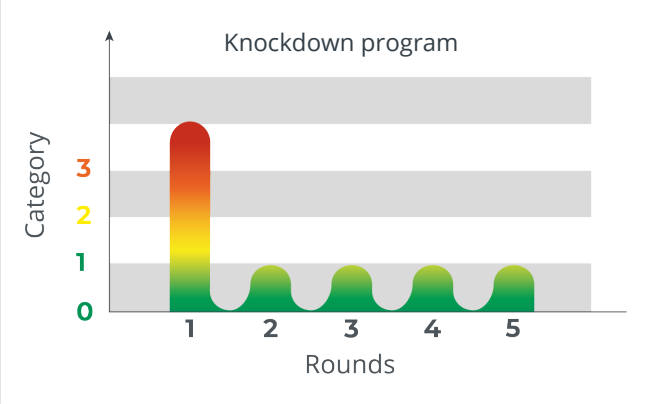
MS TopFoam LC Acid is a low pH cleaner to help you get rid of inorganic materials such as Iron, Calcium etc. In areas where you have lots of iron or by the use of Lime wash you can consider putting MS TopFoam LC Acid in your SOP multiple times per year. This should always be after your Alkaline cleaning step, so that the pollution of the previous round is gone.

Benefits
- Used through foam applicator
- Fast extra step

Application instructions
- MS TopFoam LC Acid will be used after your SOP (also after the use of MS TopFoam Alkaline)
- Depending on the layer left, choose your dilution rate accordingly: usually between 2-4%
- Let it soak for at least 15 minutes

OPTION 2
Knockdown program

Reset to category zero
(MS Reset Acid)



MS Reset Acid will be used after your standard operating procedure for cleaning. When there is a layer of organic or inorganic material left you can choose to perform a Knockdown.

Benefits
- Highly concentrated
- Low pH for inorganic pollution

Application instructions
- Apply the product through a hand or backpack sprayer
- Let it soak for 5 minutes and then pressure wash clean
- Thick layer might take 2-3 times to get through the entire layer

ALKALINE FOAM CLEANERS
For organic pollution

	Product	Description	Cleaning program
	**MS TopFoam Power**	MS TopFoam Power is a very strong foam cleaner with >60 min contact time and the most powerful cleaning capabilities of the TopFoam range. This foam will effectively remove even the most tenacious dirt.	Continuous
	**MS Reset Alk**	MS Reset Alk is an extremely concentrated detergent that is used to reset a category 3 organic contamination back to category 0 during a knockdown program. Minimal foaming.	Knockdown

ACIDIC FOAM CLEANERS
For inorganic pollution

	Product	Description	Cleaning program
	**MS TopFoam LC Acid**	MS TopFoam LC Acid is a powerful acidic foam cleaner cleaner with strong binding proprties. It can remove heavy soiling containing iron, manganese and limescale deposits.	Continuous
	**MS Reset Acid**	MS Reset Acid is an extremely concentrated detergent that is used to reset a category 3 inorganic contamination back to category 0 during a knockdown program. Minimal foaming.	Knockdown