

Decalcification of quality espresso machines

durgol® swiss espresso® is a special decalcifier for quality espresso machines of **all brands**, including fully automatic machines, half automatic machines, manual machines as well as machines working with coffee pods or capsules.

durgol® swiss espresso® is highly effective, easy and safe to use and is guaranteed to decalcify quickly and easily without the need to wait for the decalcification process to work. Regular use of this special formula will ensure the optimal quality of your espresso and extend the life span of your machine. **durgol® swiss espresso®** leaves no residue and after decalcification and rinsing, your machine is completely safe for use.

durgol® swiss espresso® is available at selected specialized retailers in a package which contains two single-portion bottles of 4.2 fl.oz./125 ml each. One single-portion bottle is designed to decalcify one machine **once**.



Good to know

What is lime?

Lime deposits form when tap water is heated, i.e. in espresso machines or water heaters. The minerals in tap water, particularly calcium and magnesium carbonate, are present because ground water seeps through mineral-rich rock or soil before entering the drinking water supply.

Why must you decalcify your espresso machine?

Lime deposits in your espresso machine can diminish the quality of your espresso and the lifespan of your machine:

- Lime deposits lead to an extended brew-time and diminished heat transfer, which detract from the quality of your espresso.
- Lime deposits build up over time and eventually clog and corrode the interior of espresso machines.
- Lime deposits lead to a higher use of energy by the espresso machine and therefore negatively impact our environment.

For optimal quality espresso and to ensure the long life of your espresso machine, it is important to decalcify your machine regularly.

What can you expect from a good decalcifier?

Lime deposits are dissolved by the decalcifier's acid content. The intensity of this reaction is evidenced by the bubbling action. The effectiveness of the decalcifier depends considerably on the acid component in the decalcifier. **When appropriately dosed, an ideal decalcifier guarantees fast and thorough decalcification of the machine while at the same time providing maximum protection of the machine's components.**

Why should you not decalcify your espresso machine with citric acid or vinegar?

During decalcification with decalcifiers on citric acid basis, residue can form and clog the fine lines and valves of your espresso machine. Lime deposits can become sealed under an unremovable layer of residue formed by the citric acid. Finally, decalcifying with citric acid works 10 times more slowly than with durgol[®] swiss espresso[®].

Decalcification with vinegar or vinegar essence produces an unpleasant smell because of the acetic acid in vinegar. The plastic in your espresso machine can absorb an objectionable taste which will then leach into your espresso and compromise its quality.

Certain plastics can be damaged by acetic acid, and as is the case with citric acid, decalcifying with vinegar works considerably more slowly (>10 times) than with durgol[®] swiss espresso[®].

When should you decalcify your espresso machine?

Please decalcify your espresso machine regularly and as soon as it needs it!

The type of machine you have determines when to decalcify:

- Machines with a decalcification indicator: Please adjust the machine in accordance with the manufacturer's guidelines for your water's hardness. Your water company can either tell you the water hardness in your area or you can perform a special test to determine it. As soon as the decalcifying indicator lights, you should decalcify the machine.
- Machines without a decalcification indicator: Please decalcify your machine as soon as it begins to work more slowly or irregularly or when the quality of the foam ("crema") diminishes.

The right decalcifier

durgol[®] swiss espresso[®] is highly effective but at the same time gentle to your machine.

- durgol[®] swiss espresso[®] works up to 10 times faster than other branded decalcifiers. There is no need to interrupt the decalcification process to wait for durgol[®] swiss espresso[®] to work.
- One single-portion bottle (4.2 fl.oz./125 ml) of durgol[®] swiss espresso[®] can dissolve up to 0.35 oz./10 g of lime. This is sufficient to decalcify one espresso machine once.
- Because of its special corrosion protection formula, durgol[®] swiss espresso[®] will not damage your espresso machine when used correctly. No residue that could clog your machine will develop during decalcification.

durgol[®] swiss espresso[®] is easy and safe to use.

- Because of the high decalcifying speed of durgol[®] swiss espresso[®] decalcification is fast and easy.
- durgol[®] swiss espresso[®] comes ready to use. In contrast with powder or tablet decalcifiers, it is not necessary to dissolve durgol[®] swiss espresso[®] in water. Liquid durgol[®] swiss espresso[®] does not contain any additives, such as those found in tablets, which can clog your machine.
- One single-portion bottle (4.2 fl.oz./125 ml) of durgol[®] swiss espresso[®] provides a complete decalcification for your machine. Other decalcifiers are often under-dosed and therefore do not completely decalcify your machine.

durgol[®] swiss espresso[®] is safe for you.

- durgol[®] swiss espresso[®] leaves no chemical residue after decalcification and rinsing. durgol[®] swiss espresso[®] is odorless and leaves no taste.

durgol[®] swiss espresso[®] is environmentally sound.

- During the reaction of acid with lime, the acid is neutralized via the formation of salts. The presence of unused durgol[®] swiss espresso[®] in waste water contributes to the neutralization of lye which is present in the water from detergents. durgol[®] swiss espresso[®] does not fertilize the water.
- Because of its strong lime-dissolving ability, durgol[®] swiss espresso[®] can be dosed economically and in an environmentally-friendly way. The single-use portions prevent overdosing.
- The durgol[®] swiss espresso[®] bottle is made of PET and is therefore environmentally compatible and recyclable.

Instructions for use

How should you decalcify your espresso machine?

With durgol[®] swiss espresso[®], decalcification of your espresso machine is simple and safe. Please follow the manufacturer's directions for decalcification and rinsing. Remove the water filter (if available) before decalcification and rinsing and reinsert it afterwards.

Decalcification and rinsing of machines with an automatic decalcification program.

1. Put 1 single-portion bottle (4.2 fl.oz./125 ml) of durgol[®] swiss espresso[®] into the water tank.
2. Dilute the decalcifier with tap water according to the manufacturer's instructions. Start the decalcification program. If no dilution instructions are given, add tap water to the water tank until the automatic program can be started.
3. Catch the water in a glass or plastic container that is large enough to prevent splashing as it flows out of the machine.

Be careful – the liquid can be hot!

4. Rinse the machine with tap water according to manufacturer's guidelines.
5. Now you are ready to enjoy your next perfect cup of espresso.

Decalcification and rinsing of machines without an automatic decalcification program.

1. Put 1 single-portion bottle (4.2 fl.oz./125 ml) of durgol[®] swiss espresso[®] into the water tank.
2. Dilute the decalcifier with the same amount of tap water. (Use the empty package to measure.)
3. Let this solution run through the coffee dispenser. If you are not able to start the machine with this amount of liquid, continue filling the water tank until you can. There should be approximately 16.8 fl.oz./0.5L in the tank.

Please take note of the advice in the next section.

4. Catch the water in a glass or plastic container that is large enough to prevent splashing as it flows out of the machine.

Be careful – the liquid is hot!

5. After decalcification, rinse the water tank with tap water. Finally, rinse the machine by running 1–2 tankfuls of tap water through it.
6. Now you are ready to enjoy your next perfect cup of espresso.

Please note the following for machines without an automatic decalcification program.

- If the manufacturer's instructions advise waiting some amount of time for the decalcification reaction to work, you can disregard that advice because durgol[®] swiss espresso[®] works much more quickly and effectively than conventional decalcifiers.
- If your machine works with whole bean coffee (i.e. contains a grinder), decalcify only the hot water discharge system so that the brewing system is not decalcified.
- If your machine works with capsules, "coffee pads" or ground coffee (i.e. does not contain a grinder) and has two dispensers (one for hot water and one for coffee), first decalcify the coffee system and dispenser, and then put the solution back into the water tank and decalcify the hot water system and dispenser (do not activate the steam function).



Decalcifying electric water heaters and tea kettles.

durgol[®] swiss espresso[®] is also recommended for decalcifying water heaters/tea kettles. Unplug the appliance and let cool. Simply put 1 single-portion bottle (4.2 fl.oz./125 ml) of durgol[®] swiss espresso[®] into the water heater/tea kettle. The intensity of this reaction is evidenced by the bubbling action. durgol[®] swiss espresso[®] is finished with the decalcification when bubbling action subsides (it will only take a few minutes). If there are still lime deposits on the water heater's walls, simply fill the heater/kettle with tap water to cover all the deposits and wait 15 minutes. Then rinse the heater/kettle well with tap water.

Do not turn on the water heater during decalcification.

Do not heat the tea kettle during decalcification.

General advice

Thorough decalcification of your espresso machine will only be achieved by using a complete 4.2 fl. oz./125ml single-portion bottle of durgol[®] swiss espresso[®] for each decalcification. Commercial espresso machines with water tanks larger than 51 fl.oz./1.5L may require two single-portion bottles of durgol[®] swiss espresso[®] per decalcification.

durgol[®] swiss espresso[®] is a special decalcifier for espresso machines and its product safety has been proven a million times. We assure you that when used as intended, our product is safe for your appliances. Please note that we do not assume responsibility for damage which results from not using durgol[®] swiss espresso[®] according to the instructions for use in this brochure.

Danger

- **Keep out of reach of children.**
- Harmful if swallowed or in contact with eyes or skin. Do not swallow. Avoid contact with eyes or skin.
- Do not mix with chlorine type bleach or other chemicals.
- Contains amidosulfonic acid, auxiliary ingredients.

First aid

- Upon **eye contact**: flush immediately with cool water. Remove any contact lenses. Continue to flush with cool water for 15 minutes. Seek medical attention.
- **If swallowed**: rinse mouth with plenty of cool water. Then drink plenty of fresh cool water and seek medical attention. Do **not** induce vomiting.
- Upon **skin contact**: wash immediately with cool water.
- **Spills**: wipe off with paper towels and discard with household garbage.

Warnings

- Contact of the diluted or undiluted decalcifier with acid-sensitive surfaces such as marble, limestone, thin or damaged chrome plating, certain types of chrome steel, enamel, and silver should be avoided because they can be damaged by the decalcifier.
- After pouring out the used decalcifying solution, rinse well with cold water.
- Should older espresso machines become leaky after decalcification with durgol[®] swiss espresso[®] following the instructions for use, this is not the fault of durgol[®] swiss espresso[®], but rather the result of brittle plastic parts (seals, etc.). The age-related damage will be obvious after removing the sealing lime layer on the parts.