

THE GREASE GUIDE 2024



PUBLIC WORKS
ENVIRONMENTAL SERVICES


Sylvan Lake
For more information visit
sylvanlake.ca/sourcecontrol



Introduction

This guide is designed for understanding the proper function, operation, and maintenance of grease interceptors. Information is provided for Business Owner/Operators and Contractors servicing Food Service Establishments in the Town of Sylvan Lake.

For more information visit sylvanlake.ca/sourcecontrol

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How Often Do Grease Interceptors/Traps Need to Be Cleaned?

Cleaning frequency depends on the size of your grease interceptor, how frequently it is used, and how many [Best Management Practices \(BMP\)](#) are implemented (eg. scraping and wiping plates before washing).

Grease interceptors should be [monitored weekly](#) to determine cleaning frequency. [The Town of Sylvan Lakes Water & Sewage Bylaw 1805/2020](#) states grease interceptors must be cleaned: A minimum of every 30 days OR more frequently if the FOG and solids exceed 25% of the liquid volume of the grease interceptor.

Once cleaning frequency is established FSE's are encouraged to sign up on a recurring cleaning schedule with a licensed service provider. This is the easiest way to stay compliant with the bylaw. For a list of licensed service providers in our area please visit [Sylvan Lake Business Directory](#), under key-word type "grease".



Grease Interceptors must be cleaned

A minimum of every 30 days
OR more frequently if the FOG
and solids are more than 25%
of the volume of the grease
interceptor

Before and after photos must be taken and submitted for all self-cleaned interceptors.

Fines can be imposed for improper grease interceptor cleaning, disposal, and record keeping.

Monitoring your FOG Levels Weekly

1. Remove the lid of your grease trap.
2. Use a long stick (chopstick, screwdriver, ruler etc.) to break through the FOG layer on top and swirl the stick until you can see the water layer below to determine its depth.
3. Once the FOG layer is approximately 2 inches deep, it is time to clean your grease trap.
4. If FOG layer is thick, hard to break through or solidified, the grease trap needs to be cleaned immediately and more often. – You may be at risk for a sewer back up.
5. Record your findings on your [Service Monitoring Log](#).

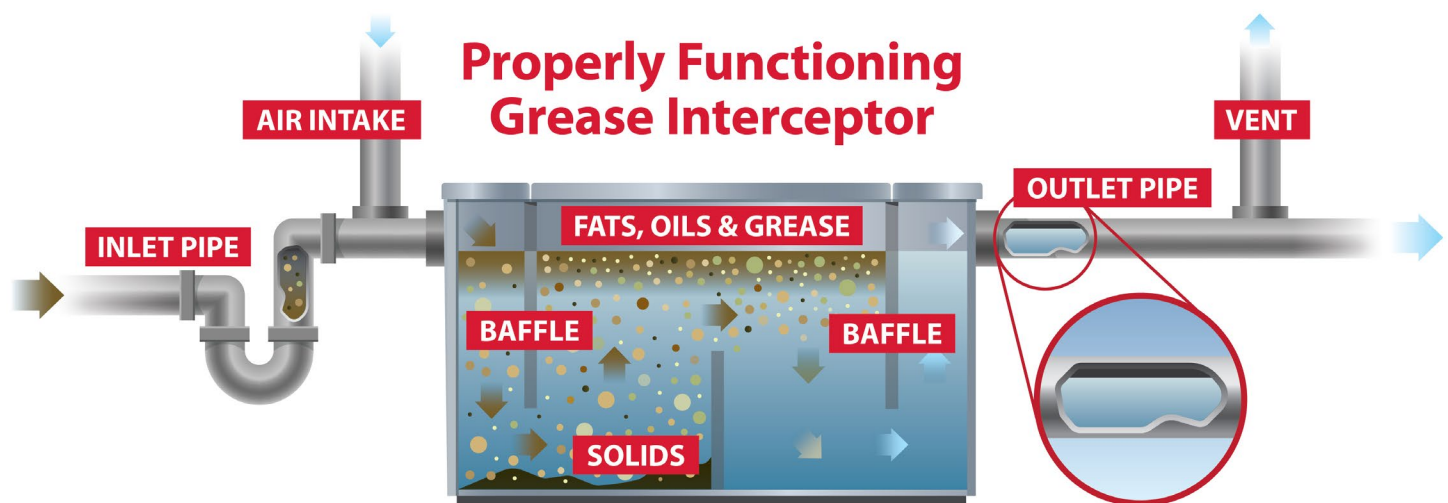


Illustration used with permission from The City of Calgary

Cleaning & Maintenance

Instructions for Owner/Operators

1. **Take before cleaning photos:** Open the grease interceptor and take two or three photos clearly showing the interior condition of the interceptor from various angles
 - Photos must be submitted via email to sourcecontrol@sylvanlake.ca within 7 days of cleaning.
 - Retain a copy for your records and provide if requested.
2. Scoop out the layer of FOG on the top for disposal. Place FOG (top layer) and solids (bottom layer) in your organics bin if permitted. If not permitted, dispose of them in your garbage bin double-bagged or in a leak and puncture proof container.
3. Use a wet-dry vacuum to suction out the liquid layer, leaving solids at the bottom of the interceptor.
4. Scrape the sides of the interceptor and the baffles (if detachable, remove the baffles for cleaning).
5. Scoop out the solids and scraped material from the bottom of the interceptor for disposal.
6. Using fresh water and a scraping tool or brush, thoroughly clean the entire inside of the interceptor and suction out the remaining waste material.
7. Rinse the grease interceptor with clean water and suction one last time.
8. Ensure that the inlet, outlet, and air relief ports are clean and clear of obstructions.
9. Inspect all components for any corrosion or damage and ensure that all components are working properly. If required, contact a grease interceptor cleaning company or plumber for repairs.
10. Properly reinstall any removed seals or baffles.

Baffle Examples



Image generously supplied by
Canplas Industries Ltd.

Continued on next page ➡

Cleaning & Maintenance

Instructions for Contractors

1. Carefully remove the lid of the interceptor without damaging the gasket. Examine gaskets for damage and clean or replace if necessary.
2. Fully pump out the contents of the grease interceptor, ensuring that the inlet and outlet of the interceptor are also clear. Record depth or percentage of fats/oils/grease and solids on the owner's Service Monitoring Log.
3. Remove baffles and screens. Scrape the inside walls and lid being careful not to damage the finish.
4. Do not use soaps or degreasers to clean the interior of the interceptor.
5. Inspect baffles, screens, lid, walls, inlet, outlet, sampling point and any other parts of the interceptor for corrosion or damage.
6. Record date of full cleanout on the Service Monitoring Log and note the condition of the interceptor.
7. Schedule repair or replacement of any damaged components.
8. Ensure that the grease interceptor has been properly reassembled
9. Sign off the Service Monitoring Log and provide service records to the owner.

Document the cleaning on the owner's Service Monitoring Log. ➡

[illegible]

Do not use or promote the use of enzymes or other substances to facilitate the passage of fats, oils, or grease as they are prohibited under The Town of Sylvan Lake's Water & Sewage Bylaw 1805/2020

How Do I Know What Type/Size of Grease Interceptor I Have?

Name of manufacturer Model Number:

This product conforms to
ASME A112.14.3 / CSA B481.1

Flow rating:
132 L/min (35 gpm)

Grease removal efficiency:
90.0%

Maximum grease containment capacity:
32 kg (70 lb)

Access cover load rating:
H

Flow control device:

Required (party number):

This is an example of the
manufacturers label for
all units sold in Canada.

ASME A112.14.3-2022/CSA B481.1:22
Hydromechanical grease interceptors

Illustration of sample label for
products to be sold in Canada.

If you don't have maintenance instructions for your specific Grease Interceptor, reach out to your service provider or the manufacturer.

All manufacturers are required to provide instructions that include:

1. Maintenance instructions
2. Safety and health provisions
3. Cleaning instructions
4. Trouble shooting guide that includes instructions for performing necessary servicing or for obtaining servicing

Is My Grease Interceptor the Correct Size?

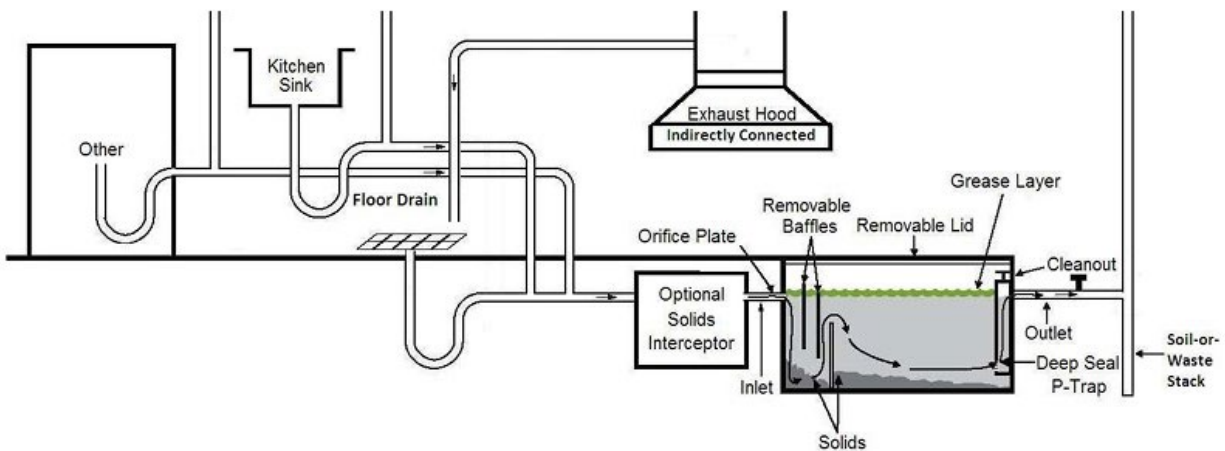


Illustration used with permission from
Alberta Municipal Affairs – Technical and Corporate Services [STANDATA 20-PCB-008](#)

A grease interceptor must be the appropriate size to capture and contain FOG efficiently until it can be properly disposed of. Undersized grease interceptors get overwhelmed and release excessive amounts of FOG, which can cause issues for both private and municipal wastewater systems.

Having an appropriately sized grease interceptor is also a requirement of [The Town of Sylvan Lakes Water & Sewage Bylaw 1805/2020](#). Failure to follow these requirements can result in Fine(s), Remedy Notice(s), Municipal Tag(s), Provincial Ticket(s), Orders(s) or disconnection of Utility services.



Grease interceptors come in a variety of sizes and are rated by the manufacturer for different flow rates. Many factors are used to determine size and flow rate required. They include and are not limited to;

- Containment capacity of the grease interceptor
- Removal efficiency to be reached
- Volume of wastewater discharged through the grease interceptor
- Desired cleaning frequency (small traps need to be cleaned weekly and, in some cases, daily)
- And the concentration of FOG in the wastewater, which depends on
 - The type of cuisine
 - The cooking methods employed
 - The average number of customers served
 - Type of activity at each fixture (prep sink, rinse sink, mop sink etc.)
 - And the serving methods employed (e.g., a fast-food outlet that packages its products in disposable wrappers will have fewer items to clean than a full-service restaurant that provides silverware and china plates)

To determine the capacity of the fixtures or appliances, the following formula can be used:

Step 1: Determine the volume of your sink(s)

Multiply length x width x height. *Example:*

SINK 1 1.2m x 0.3m x 0.61m = 0.2196 m3		SINK 2 1.3m x 0.4m x 0.51m = 0.2652 m3		COMBINED TOTAL 0.4848 m3
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Step 2: Convert m3 into L

Multiply combined total m3 by 1000.

Example: 0.4848 m3 x 1000 = 484.8 L

Step 3: Determine actual drainage load

The sink is normally filled to about 75% of capacity with water. The items being washed displace about 25% of the fixture content. This creates an actual drainage load of 75% of the fixture capacity

Example: 0.75 x 484.8 = 363.6 L

Step 4: Determine drainage time

Assuming a drain down time of one minute, the drainage period is the actual time required to completely drain the fixture.

Example: 363.6 L / min

Step 5: Select an Interceptor

Select an interceptor that corresponds to the flow rate calculated. If the flow rate falls between two sizes available, select the next larger size.

Note: The depth of the sinks shall be based on the flood rim elevation and not the divider/stoper elevation.

For help selecting and installing a grease interceptor for your Food Service Establishment, contact a licensed plumber.

For Your Information

The following information is taken from ASME A112.14.3-2022/CSA B481.1:22 Hydromechanical Grease Interceptors and is for your information.

Annex G (informative)

Maintenance of grease interceptors

G.1 Introduction

Grease buildup often causes sewage backup and overflows, which can lead to costly clean-up operations and sewer repairs. Grease buildup can also expose a facility to health code violations and substantial fines levied by environmental regulatory bodies.

To help prevent grease buildup, grease interceptors shall be installed to separate and collect a maximum amount of FOG. Grease interceptors shall have markings indicating their FOG containment capacity. During operation, the grease interceptor's containment chamber(s) fill with FOG and solids. Once the containment capacity is reached, the interceptor's removal efficiency begins to decrease until it no longer separates or captures FOG.

To obtain the maximum removal efficiency from a grease interceptor, facilities shall

- a.) establish and adhere to a regular schedule of cleaning and maintenance; and
- b.) ensure that maintenance staff or external contractors follow the operating and maintenance (cleaning) instructions provided by the grease interceptor manufacturer.

Frequency of maintenance depends not only on the amount of FOG generated, but on the facility's implementation of [best management practices](#) to reduce the FOG and solids discharged into the sanitary sewer system (see Annex H). Implementing best kitchen management practices to prevent FOG and solids from entering the drain will likely result in cost savings thanks to reduced service frequency of the interceptor, fewer pipe blockages, less flushing maintenance, and reduced odour problems.

G.2 General maintenance requirements

To contribute to the goal of managing waste-responsibly and minimizing the frequency of required cleaning and maintenance, the facility shall provide training to its employees in

- a.) the proper function, operation, and maintenance of grease interceptors;
- b.) the proper storage, handling, and disposal of wastes;
- c.) the proper use and handling of cleaning aids;
- d.) proper housekeeping; and
- e.) the benefits of following the applicable plumbing or building code and [best management practices](#) for food processing facilities.

G.3.1.1 Purpose

Regular monitoring shall be conducted to ensure that

- a.) the aggregate volume of FOG and solids does not exceed the maximum containment capacity of the grease interceptor; and
- b.) the servicing frequency remains adequate in the event that the volumes of FOG and solids passing through the grease interceptor increase.

Note: *Grease interceptors should be serviced before the depth of FOG and solids exceeds 25% of the liquid volume of the grease interceptor.*

G.3.1.2 Service monitoring log

A monitoring log shall be kept to record levels of solids, free water, and FOG (see page 16 for a [sample service monitoring log](#)). Thorough recordkeeping will not only serve to keep track of these levels but will also help demonstrate due diligence and compliance with the regulatory authority in the event that a grease blockage occurs in the vicinity of a facility.

G.3.2 Automatic method

When approved by the authority having jurisdiction, automatic monitoring equipment may be used to indicate when a grease interceptor has reached its containment capacity.

G.4.1.1 Regular servicing

The following shall apply for grease interceptor servicing:

- a.) grease interceptors shall be serviced before the volume of FOG exceeds the rated capacity of the grease interceptor.
- b.) grease interceptors shall be serviced at least once every 30 days or upon reaching the certified capacity of the grease interceptor, whichever occurs first.

Proper servicing consists of removing 100% of the intercepted substances (i.e., the entire contents) and thoroughly cleaning the grease interceptor and inspecting its components. Regular servicing of grease interceptors shall be performed to prevent excessive odour and the attraction of vermin.

G.4.1.2 Due diligence

If due diligence is not shown and maintenance is not regularly performed, the regulatory authority can require that a monitoring device with an alarm be installed to ensure compliance with maintenance requirements.

G.4.1.3 Chemical or other agents

An operator of a food services facility shall not use or permit the use of chemical agents, enzymes, bacteria, solvents, hot water, or other agents to facilitate the passage of FOG through a grease interceptor.

G.4.2 Servicing frequency

The servicing frequency shall be determined by monitoring the FOG accumulation in the grease interceptor to ensure that it does not exceed the maximum containment capacity. Once the optimal servicing frequency has been determined, regular servicing at the interval shall be carried out to maintain the removal efficiency of the grease interceptor.

Notes:

1. Optimal servicing frequency can vary from several times a week to once every few weeks.
2. Servicing frequency depends on the following factors:
 - a.) the containment capacity of the grease interceptor;
 - b.) the concentration of FOG in the wastewater, which depends on
 - i. the type of food served;
 - ii. the cooking methods employed; and
 - iii. the serving methods employed (e.g., a fast food outlet that packages its products in disposable wrappers will have fewer items to clean than a full-service restaurant that provides silverware and china plates);
 - c.) the removal efficiency to be reached; and
 - d.) the volume of wastewater discharged through the grease interceptor.

G.4.3.1 General

Grease interceptors should be maintained as follows:

- a.) evacuate all contents, FOG, and solids.
- b.) clean internal components in accordance with manufacturer's instructions.
- c.) dispose of intercepted substances in accordance with Clause G.5.

G.4.3.2 Inspection

During each servicing, grease interceptors shall be thoroughly inspected while empty to ensure that the inlet, outlet, and air relief ports are clean and clear of obstructions. Similarly, internal components (e.g., baffles and seals) shall be inspected to confirm that their structural integrity is not compromised

Damaged components shall be replaced to ensure that the grease interceptor will continue to perform as intended.

G.4.3.3 After servicing

After servicing,

- a.) cover gaskets shall be properly reinstalled;
- b.) the cover shall be securely fastened; and
- c.) the grease interceptor shall be refilled with water in accordance with the manufacturer's instructions.

G.5.1 Disposal requirements

Intercepted substances removed from grease interceptors shall be stored and/or disposed of in accordance with applicable local requirements. These can include

- a.) regulations and bylaws;
- b.) licensed waste haulers; and
- c.) licensed waste disposal facilities.

G.5.2 Prohibition of discharge

Intercepted substances shall not be discharged into sanitary sewers, storm sewers, drainage ditches, or surface water.

Best Management Practices

The following information is taken from ASME A112.14.3-2022/CSA B481.1:22 Hydromechanical Grease Interceptors and is for your information.

Annex H (informative)

Best management practices for liquid waste

H.1 General

Owners and operators of food facilities should

- a.) implement the best management practices specified in Clause H.2 to improve the quality of the wastewater discharged to drains and sewers; and
- b.) consult with regulatory authorities to determine compliance criteria for the proper handling of wastewater.

H.2.1 Signs

Signs in the kitchen, especially over the sink, informing staff what can and what cannot be poured down the drains should be posted. The local municipality should be consulted and advised of the grease management program that is adopted. Many municipalities will provide “[NO GREASE](#)” posters and signs to place above sinks and drains, as well as best practices manuals.

H.2.2 Liquids and grounds

Oil, grease, or large amounts of oily liquids such as gravies, sauces, or salad dressings should not be poured down the drain. Collect those substances in water tight waste-grease containers for disposal at approved locations. Coffee grounds or tea leaves should not be poured down the drain.

H.2.3 Dry clean-up methods

Dry clean-up methods should be used to minimize FOG discharge. This can involve the use of

- a.) rubber scrapers to scrape off greasy trays and pans into a waste-grease container before putting them into a sink or dishwasher;
- b.) rubber scrapers to scrape food waste from pots, pans, and dishes into a garbage bin before putting them into a sink or dishwasher;
- c.) food-grade paper to soak up grease and oil under fryer baskets;
- d.) paper towels to wipe down work areas. Do not use cloth towels, as they will accumulate grease that will eventually end up in drains from towel washing and rinsing; and
- e.) kitty litter to absorb liquid spills. Sweep up and dispose of the litter in a garbage bin (as long as the spilled liquid is not a hazardous substance).

H.2.4 Removal of solids

Stainless steel or plastic fine mesh (3.2 mm [1/8 in]) strainer screens should be installed in sink drains and line the dishwasher discharge to intercept solids such as oatmeal, rice, and corn.

Solids interceptor should be installed upstream of the grease interceptor to capture solid particles. Solids consume volume with the grease interceptor and reduce separation efficiency. In addition, food waste solids that collect in a grease interceptor will decay and cause odour problems ([see Annex G](#)).

H.2.5 Exhaust systems

Kitchen exhaust systems, including exhaust hoods, filters, ducts, and fans should be cleaned using the following procedure:

- a.) use hand scrapers to remove as much grease as possible from the exhaust system. Collect and store the grease in a waste-grease container.
- b.) wash the exhaust system with a caustic cleaning solution, collecting the wash water in a bucket.
- c.) neutralize the wash water in the bucket by adding a weak acid such as lemon juice, citric acid, or vinegar.
- d.) skim off any grease floating in the bucket and store it in a waste-grease container.
- e.) pour the neutralized water from the bucket into a drain that is connected to a grease interceptor.

Do not pour the solids at the bottom of the bucket into the drain. Store the solids in a waste grease container.

Dispose of the solids in accordance with applicable regulations and by-laws. It is common for kitchen exhaust systems to be cleaned by a licensed service company.

H.2.6 Cleaning fryers

Cleaning fryers should be cleaned using the following procedure:

- a.) remove used oil from fryer and dispose in recycling bin;
- b.) added water and cleaning solution to fryer; and
- c.) remove dirty water from fryer and dispose of it in the sink that is connected to a grease interceptor.

Note: Do not pour in floor drain, mop sink, toilet, or recycling bin.

H.2.7 Recycling

A plan to reduce, reuse, and recycle waste substances should be developed and implemented. A recycling service should be employed for used cooking oil, which can be recycled into useful products such as soap, animal feed, and biodiesel products. Food waste should be separated and delivered to a centralized composting site.

Annex I (informative)

Service monitoring log

Note: This informative Annex has been written in mandatory language to facilitate its adoption by anyone wishing to do so.

I.1 General

A log shall be kept to demonstrate grease management compliance to the regulatory authority. Forms shall be stored on file for at least two years. [A sample of a typical log is provided on the following page.](#)



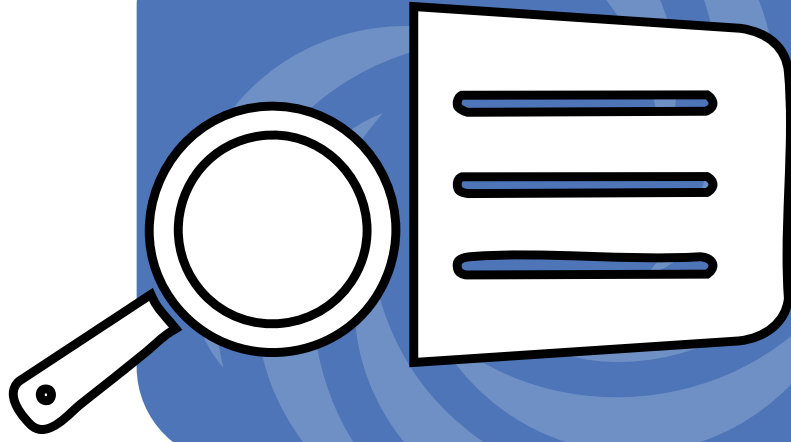
Business Name:

Business License #:

[illegible]

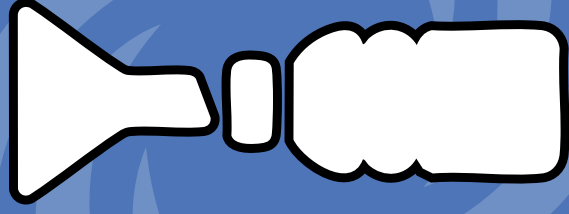
Stop the CLOG.

Store the FOG.



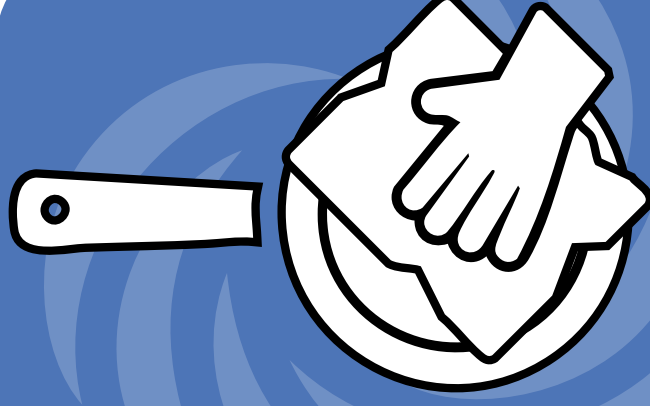
SCRAPE

grease solids
directly into a lined
trash can.



POUR

cooled liquid grease
into a sealable
container.



WIPE

remaining grease
and debris with a
paper towel.

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For more information:

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