

GOOD FOOD HANDLING PRINCIPLES



When preparing food, we must remember the 4 C's:

- Cleaning
- Chilling
- Cross-contamination
- Cooking

Make sure you are constantly cleaning work stations during food preparation to ensure a hygienic working environment, this will help prevent bacteria from spreading. Clean-as-you-go!

When preparing food, ensure that you keep all ingredients chilled. Only remove them from the fridge when you need to use them - do not leave food sitting on counters as the temperature will increase into the **danger zone** (between 5°C and 60°C).

What is cross-contamination?

This is when bacteria are transferred from one foodstuff to another, e.g. after cutting raw chicken which may contain bacteria before cooking, and then using the same knife and/or chopping board to cut salad. The bacteria can then be passed on to the salad, and since this will not be cooked further, could make a customer very ill.

For this reason, it is important to use separate knives and chopping boards for raw food, cooked ingredients and salad/fruit/veg.

SPAR has adopted the International HACCP colours for chopping boards, which reflect as follows:



Dairy & Bakery



Raw Fish



Raw Meat



Cooked Meat



Vegetables



Salad & Fruit

Raw and uncooked foods

- Raw (uncooked) food must be processed separately from cooked foods.
- Raw food must not be handled on the same surface (or handled with the same utensils) at the same time as cooked food.
- The surface must be thoroughly cleaned and sanitized between working with raw and cooked foods.
- Products must be stored per category: dairy, meat etc. raw separate from cooked.
- Unwashed fruit and vegetables must be separated from already washed fruit and vegetables.
- Food/s sensitive to odour contamination such as eggs and apples must be stored away from those with strong odours e.g. onions.

Packaging material

- Packaging material must be stored in a clean environment.
- Packaging that is stored and not in use, must be protected by outer packaging.
- Tubs and trays must always be stored upside down to prevent accidental contamination.
- Packaging materials must not be used for any other purpose e.g. drinking water from tubs, storing or dispensing cleaning chemicals.
- Outer packaging materials e.g. lugs or particularly cardboard boxes must not be placed on the work surface. Cardboard is only allowed when unpacking stock, if placed on the work surface, the surface must be cleaned thoroughly and sanitized before food preparation.
- Cardboard must be removed from the food area immediately after emptying the boxes.

Customer trolleys

- No customer trolleys are permitted in the fresh food areas. Customer trolleys are a source of contamination as there is no control over who handled the trolley or the cleaning and sanitation of the trolley.
- If customer trolleys are used these may be specifically marked and used only in the demarcated department, used for this purpose and **never used** for any other use.
- All trolleys in the food preparation area must be cleaned as part of the cleaning schedule.

Glass

It is best practice to remove or limit the hazard of broken glass in SPAR stores and ensure the risk to customer's health due to broken glass being consumed is as low as practically possible.

Glass breakage record template acts as an expression of due diligence in the event of an investigation due to the contamination/customer complaint revolving around glass found or consumed in product purchased in a SPAR store. In retail we are unable to secure the food handling areas from all glass e.g. Display glass, display dishes and product packed in glass. The use of safety glass prevents shattering. Despite this, if there is a breakage the surrounding exposed food needs to be written off resulting in waste and loss of sales.

Wherever possible glass containers or glass displays near open food must be avoided. Do not display goods packaged in glass near exposed food e.g. avoid cross merchandising glass containers near open delicatessen product. No coffee mugs, drinking glasses, dinner plates or other utensils are allowed in Fresh Food departments.

Serving dishes must be stored in a designated area and frequently inspected for chips, cracks etc. and if visible must be discarded.

It is the responsibility of the management and all food handlers to appreciate the potential risk associated with breakages of glass and follow the glass policy.

View **Glass Policy** under policy section and **Glass Breakage Form** under the checklists section for more details.

Refuse Bins

There should be no confusion between refuse bins and food bins in the departments. Use black bins for refuse and white bins for ingredients. Colour coding or clearly visible marking is acceptable.

Refuse bins must always be lined with clear liners.

Open while in use and closed when not in use.

Refuse bins must be emptied regularly and must never be overfilled.

Refuse bins must be cleaned before the store closes (prevents pests and smells).

Refuse bins should be removed from the food preparation area on a scheduled basis (weekly) and deep cleaned (preferably with a high-pressure hose) and thoroughly dried before they are returned to the store department.

No other vessel e.g. cardboard box, lugs or customer trolley may be used for refuse.

NOTE

Due to the nature of our business, we sell different types of foods and they require different disciplines when preparing them. To make this easier they are broken into the following categories:

- Preparing ready-to-eat foods, such as sandwiches
- Baking of bought in frozen goods, such as pies and pastries
- Preparing and thawing of frozen products
- The preparation of HMR dishes
- Deep frying
- Rotisserie chicken/ meats
- Reheating foods
- Special care foods, such as sushi

Ready-to-eat foods

This includes sandwiches and salads which are made on site and all cold meats, cheesecakes and desserts.



Important! How you handle ready-to-eat food is very important because it is not going to be cooked or reheated before you sell it. If these foods are not kept cold enough during preparation, harmful bacteria could grow and make it unsafe for our customers

Sandwiches

- Always make sure that you are using the correct colour chopping board.
- Protect your ingredients by storing them separately in plastic containers with lids.
- Ensure that your ingredients are stored at the correct temperature – below 5°C.
- Date label your ingredients so that you can keep track of when food should be thrown away.
- When packaging sandwiches ensure that the packaging used is clean.
- The packed sandwiches/rolls must have a production date and a sell by date.

Salads

- Dirt/soil from your salad ingredients can contain certain bacteria that can cause food poisoning, therefore peel, trim or remove the outer parts first and then wash them thoroughly. The correct procedure is as follows: sanitize in water containing 50PPM of free chlorine and then rinse in water which is of drinking water quality. N.B. Water should be tested against the SABS 241 annually.
- If storing your salad in bulk, date label your covered container and store in the fridge. Fresh salad must be stored in a clean, sanitized container. Never mix old and new salads.

REMEMBER

If you have prepared vegetables that have soil on them, clean and disinfect chopping boards and work surfaces before going onto your next job.



- Do not use any salad ingredient which is past the “use by” or “best before” date.



Cold meats

- Slice meat as soon as you take it from the fridge so that the temperature is maintained.
- Ensure that good stock rotation is being maintained and that all full loaves have a date received on them so that you know you are using the correct product. Do not open more than one variant of loaf at a time.
- Avoid handling the meat as much as possible.
- It is a good idea to slice straight onto the paper you will use to wrap it or onto the display tray.
- Use the slicer correctly according to the manufacturer's instructions, and clean in the same manner. (see safe cleaning practices module).
- Always cut the same kind of meat and clean and sanitize before you slice another type i.e. pork and beef.
- Once displayed, only slice as much as you require and ensure that your fridges are at the correct temperature for holding.

Frozen pies/pastries

Always follow the manufacturer's instructions for baking; the preparation of the product, the times and temperature required for cooking:

- Do not leave frozen products at room temperature. Remove only the right amount for cooking immediately.
- Pre-heat the pie-warmer before you put the pies into it.
- Ensure that your hot holding equipment will hold the pie at a minimum of 60°C.
- Monitor temperatures regularly.
- Move the baked pies into the warmer as soon as baking is completed so the temperature can be maintained at and above 60°C.

Important! Do not re-heat yesterday's pies for resale!



Important safety point! If your equipment is not working correctly, food may not reach the right temperature to kill bacteria. It is vital that your products are properly baked off – use a temperature probe to check that they are cooked all the way through.

Frozen food/Thawing frozen food

Some foods can be cooked straight from the freezer, if this is the case, the product packaging will indicate this under the heating/cooking instructions. Many foods must be thawed before cooking. Follow the manufacturers instructions. If frozen food is not thawed completely, ice crystals remain in the centre. Although the cooking will melt the ice, internal temperatures may not be hot enough to kill most pathogenic micro-organisms. The food will also take longer to cook.

Food must be thawed carefully to ensure that there is no bacterial contamination from the thawed liquid. When small refrigerators are used for thawing and storing at the same time, the stored food can easily become contaminated. If food is thawed at ambient temperature, bacteria will start to multiply rapidly on the surface of the food while the centre remains frozen or is still thawing. Should this be the case, a defrosting date should be added to the container, so FIFO can be maintained during the process. Never defrost frozen product in a sink of running water or a plastic container full of water in the service department under the table.

Frozen food must be thawed in the refrigerator. Place food product in a container within a self-draining unit (drip tray) to defrost over-night. Large food products may need to be taken out for defrosting well in advance e.g. a whole chicken can take 2 -3 days to defrost in the refrigerator, ensure that the product is date labelled in the fridge.

Some equipment allows you to cook chicken from frozen – if you have this equipment in your store, ensure that all staff have been trained on the correct use of the equipment and that the settings are correct for the size of the chickens you are cooking. If this is not done, there is a good chance that you will be selling dangerous products to our customers.

Correct defrosting practices:

- Always defrost the food in a fridge – allow enough time to ensure the product is thoroughly defrosted. You will need to plan correctly to make sure this happens.
- Defrosting must take place in a self-draining container to drain off any liquid which comes from the product immediately, to prevent cross contamination.
- Always defrost using the bottom shelf of the fridge to prevent juices from dripping onto other products and contaminating them.
- Cover all food being defrosted.
- To check if your product has fully defrosted, use a probe thermometer.
- Keep meat, poultry and fish separate when defrosting.



IMPORTANT!

- Never re-freeze defrosted food.
- Only defrost in a microwave if it's an emergency!
- Never defrost in hot water.
- Do not leave out overnight.

Cooking in your HMR department

- When working with raw meat or poultry, food handlers should wear a disposable apron over their store PPE.
- Ensure that colour-coded boards are being used correctly.
- Keep meat, poultry and eggs separate from other foods you are preparing.
- After handling raw meat, poultry or eggs staff should always wash and sanitize hands, as well as clean and sanitize equipment and work surfaces that have been touched by these foods.
- If possible, have separate work stations for the different types of foods to prevent cross contamination.
- Only produce what you can safely display/merchandise. Excess food must not be kept at ambient temperature – it would have to be cooled quickly and sold as chilled product under 5°C.



IMPORTANT! SAFE COOKING TIPS:

- Do not let raw food touch or drip onto cooked food – raw food carries bacteria which can spread onto cooked food which could make it unsafe.
- Pre-heat equipment before cooking to ensure correct cooking times.
- Use clean equipment.
- Ensure that poultry is cooked by checking the thickest part of the leg - the juices should not be pink, or red. Use a probe thermometer to check that the centre has reached 75°C.
- The largest piece of meat in stews or curries should be heated all the way through to 75°C. Once again, use a probe to check.
- Combination dishes, such as lasagne must be hot at the core. Remember, if you are cooking a large batch check the temperature in different places, as some parts will require a longer cooking time.
- Place directly into the Bain Marie, or cool very quickly.

Deep frying

As the consumption of used oil is dangerous for both human and animal consumption, it is very important to ensure that cooking oil is disposed of in a safe manner. Oil pollutes the sewage system and the environment if it enters the storm water system. Every effort is therefore made to remove used cooking oil safely and responsibly from our SPAR stores.

These practices should be adhered to, to achieve the best frying life from oil. If you follow these guidelines you will be able to fry for a longer time without the oil becoming unsafe to use:

- Buy a good quality oil from a reputable supplier.
- Load oil to the maximum load line in the fryer. Do not overfill the basket as this reduces the temperature of the oil.
- Make sure any batter/coating clings to the food properly to prevent it falling off and do not salt food before you fry.
- Do not season food over the fryer (seasonings accelerate the breakdown of the oil).
- Meat and fish deteriorate the oil faster than potatoes.
- Never merchandise at room temperature, i.e. on top of counters. If merchandised cold, the cooked product must be brought down to below 5°C within 2 hours. A blast chiller will be necessary.
- Fryers should be kept meticulously clean. It is important to rinse equipment, including the skimmers and sieves after cleaning to remove any cleaning agent.
- Thermostats on fryers are not always accurate. The temperature of the oil should be checked regularly, using a thermometer.



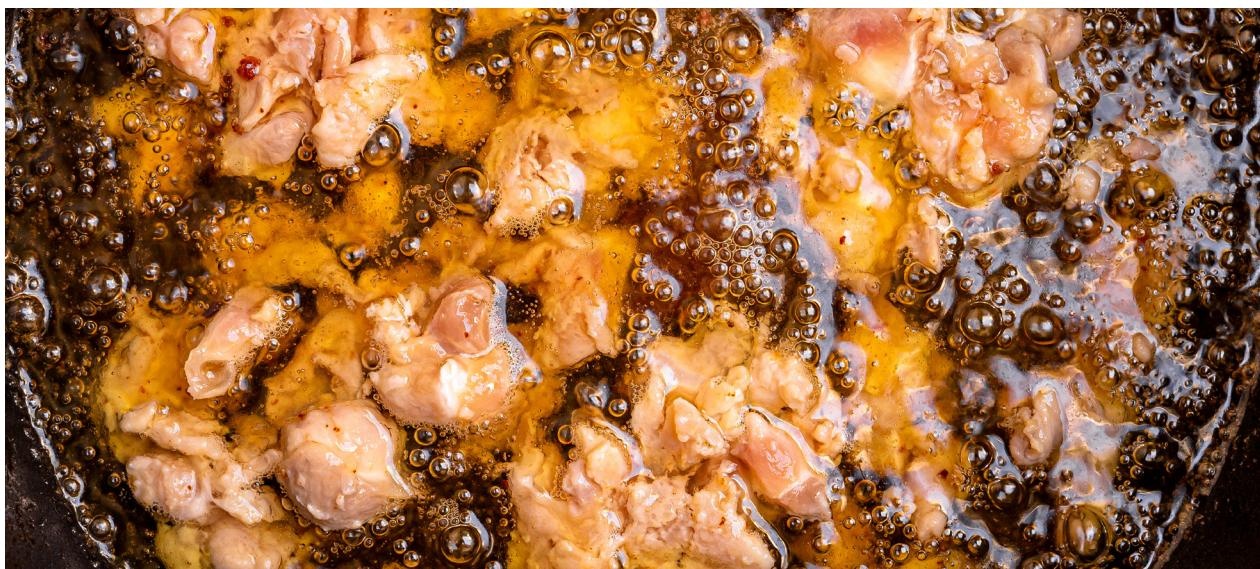
- Food should be fried at the correct temperature i.e. chips are fried at 180°C. Oil that is too hot will start smoking and will break down more quickly, while food that is fried at too low a temperature will cause the food to be immersed for far too long and will absorb a considerable quantity of oil.
- Where possible, temperature of the fryers should be reduced when oil is not in use. Oil that is continually maintained at a high temperature will break down quickly. Keep oil covered when not in use.
- Overhead extraction fans should be cleaned regularly. The build-up of steam results in gummy deposits forming in the extractor fan to condense and drop back into the fryer, causing the oil to break down.
- It is essential that the small particles floating in the fryer are removed from the oil continuously. If left in the oil, they will burn and contribute to a faster deterioration of the oil.
- Daily filtration of the oil is very important to remove fine food particles that lie on the bottom of the fryer. Fryers should be well cleaned to remove gummy deposits from the side walls and oil returned to a clean and dry fryer.
- Oil and water do not mix. Drain water from food before frying. Water causes foaming and splattering.
- New oil must never be added to old oil. This practice merely causes the new oil to deteriorate more rapidly. Oil should only be added as a top-up measure to the required level if the existing oil is still in an acceptable condition.
- Different food types should always be fried separately and in separate fryers. Certain foods impart flavour in the oil e.g. battered baby hake, which will leave a taste in the oil that will be absorbed by all other foods. The store should accommodate a vegetable, fish and meat fryer.

It is essential that oil is changed regularly, since old oil can cause food illness and when over-used becomes carcinogenic (cancer-causing). Therefore, to protect our customers' health, we need to test the oil so that we know when to change it. We do this using oil testing strips (within the expiry date) measured against the colour coded oil chart or an electric oil tester. It is also required that the oil monitoring log sheet must be completed and verified against the oil testing to show this is being done regularly.



IMPORTANT! HOW CAN YOU TELL WHEN OIL NEEDS TO BE CHANGED? SOME VISUAL SIGNS

- The colour changes, from a light colour through to a dark brown.
- The oil becomes thick as the colour gets darker.
- The oil begins to smoke.
- The smell will change.
- The flavour of the oil and the foods which you are cooking will change.





OIL FRYING GUIDE

Caring for your oil to ensure maximum frying life



IDEAL FRYING TEMPERATURES:

PRODUCT	TEMPERATURE
Potato chips	175°C
Samoosas	150°C
Fish battered and breaded	180°C
Russians and Viennas	140°C
Doughnuts	190°C



WHEN TO THROW THE OIL AWAY

SPAR requires that ALL frying oil is tested with oil monitoring strips to indicate the extent to which the oil has broken down and when it needs to be thrown away.

Remember that, in the case of sunflower oil, COLOUR can be a good QUICK indicator of whether the oil is still suitable for frying.

Sunflower oil darkens with use. The darker the oil, the less suitable it becomes for frying. It is important to double check with the oil monitoring strips.

Palm oil on the other hand is naturally reddish-brown in colour, so the colour test is NOT SUITABLE for palm oil. Oil monitoring strips are essential!



CORRECT USAGE OF OIL MONITORING STRIPS

- 1 Only test oil that is heated and ready for use. BE CAREFUL.
- 2 Ensure all 4 blue blocks are submerged to get correct reading.
- 3 Keep in this position for 5-7 seconds.
- 4 Once removed from oil, wait a few seconds before taking the reading.
- 5 Compare the colour change with the chart to determine oxidation levels.
- 6 When colour change matches level 3, you have one day left of oil usage.
- 7 If level four is matched, discard your oil immediately!

UNDERSTANDING THE READING

- 1 Oil breakdown has begun.
- 2 Fifty percent of oil life has been used.
- 3 Check the quality of fried products and discard if suspect.
- 4 The oil is spent and should be discarded.

What do we do with old/used oil?

No oil may be dumped in the waste disposal drain, because of the health risks no used oil may be given or sold to any person for consumption and no staff may buy old oil from the retailer.

There are vendors who buy old oil, bleach it and re-sell it to the lower income groups. This is unethical and must not be supported by SPAR.

The vendors collecting “used oil” are listed under the preferred supplier section of this file. They must provide written evidence that they are not using the old oil for human or animal feed consumption. Old oil may be used in the soap and chemical industry only.

The regional DC trucks remove oil from stores, this is collected from the DC by a vendor who converts the oil into biodiesel for use in the SPAR trucks.



Rotisserie cooking

Follow manufacturer's instructions for your equipment **before** cooking your product.

- Always follow your manufacturer's instructions before attempting to use it.
- Make sure that the supplier gives in-depth training to all staff who will be using the equipment.
- Make sure the equipment is set for the weight of the product being cooked.
- Always follow the correct methods and programme.
- Pre-heat the equipment before cooking your product.
- Have a method of labelling or recording when the product is cooked so that you know when to take it off the display if it has not been sold.
- **Never try to cook a product from frozen unless the equipment is specifically set to do so.**
- As soon as the product is cooked, ensure it goes to the hot display immediately - **display at above 60°C.**
- Never display for longer than 4 hours.



IMPORTANT SAFETY POINT! STAFF SHOULD ALWAYS WASH THEIR HANDS AFTER HANDLING RAW MEAT OR POULTRY.

Reheating foods

Only reheat food that has been rapidly chilled, i.e. in a blast chiller. This food must be reheated to 75°C (check with probe thermometer). If reheating food in a microwave, ensure that it is stirred properly so that the heat is distributed evenly.



IMPORTANT SAFETY POINT! FOOD SHOULD NEVER BE REHEATED MORE THAN ONCE! NEVER TAKE FOOD THAT HAS BEEN DISPLAYED FOR 4 HOURS, CHILL OVERNIGHT, AND RE-HEAT AGAIN!

There are some foods which also need extra attention to prevent food poisoning occurring. These foods need to be stored and handled separately from conventional raw foods and other ready-to-eat foods.

NOTE

Foods such as sushi, which are eaten raw, require specialist handling and should only be handled by someone with specialist knowledge. The service of raw and partially cooked foods presents a hazard which cannot be fully controlled.

Eggs

- Always cook eggs, and foods containing eggs, thoroughly until the white is set. Eggs can contain the bacteria Salmonella – cooking thoroughly will kill the bacteria.
- Never use eggs which are past their “sell by” date.
- If you are preparing any product which contains raw egg, such as mayonnaise or mousse, ensure that your products are clearly labelled, as customers must be made aware of this.

Rice

Rice dishes can harbour the *Bacillus cereus* bacteria, amongst other bacteria, including *E. coli*. *Bacillus cereus* can form spores which are not easily destroyed by heat and will survive cooking. If food is cooled slowly or kept at room temperature before serving, the spores will grow and produce bacteria which can multiply rapidly and produce a very heat resistant toxin which will not be destroyed by re-heating. To avoid production of these toxins, follow these simple guidelines for handing rice safety.

Storage of uncooked rice:

- Store uncooked rice in pest proof containers with lids.
- Do not use old tin cans as scoops – instead, use clean plastic or metal scoops.
- Always clean up spillages, to prevent attracting pests.

Preparation and cooking:

- Wash rice thoroughly before cooking and remove any foreign bodies (e.g. stones).
- Use clean equipment (e.g. colander)
- Ensure the washing/draining of the rice is done in a clean, sanitized vegetable preparation sink and the sink plumbing is in good order.
- If possible, cook only the quantity required for each service period and throw away leftover rice.

Cooling:

- Rice, which is not used immediately, should be cooled to room temperature as quickly as possible. Try to cool cooked rice and place it in a refrigerator within a maximum of 1.5 hours of cooking.
- Cooling large quantities of cooked rice may take several hours. To reduce this time to 1.5 hours or less, divide the rice into smaller portions, or into shallow dishes.
- Remember not to contaminate the rice whilst it is cooling e.g. by touching, coughing, sneezing nearby or using dirty utensils, cloths and equipment.
- Remember spices can also be a source of contamination. Use reputable suppliers of spices and where possible add the spices, using clean utensils/hands, as late as possible during preparation.

Storage of cooked rice:

- Never store cooked rice at room temperature.
- Once cool, cover the rice and store in a fridge at below 5°C until needed.
- Cloths and towels should not be used as a cover because they can carry harmful bacteria. Instead, use clean lids or clingfilm.
- If the rice is to be kept hot, then it should be stored at 63°C or above.

**Reheating:**

- Only take enough rice portions from the fridge as required. Keep the rest covered in the fridge until needed.
- Rice that has been kept in the fridge may stick together and form clumps. Do not use your hands to break up these clumps. Use clean utensils instead.
- Rice must be reheated until it is piping hot throughout. A temperature of 75°C for 30 seconds must be reached.
- If the rice is to be reheated in the microwave, ensure that the cooking time is sufficient for the portion size.
- If at the busiest times larger amounts of cooked rice are to be transferred to a Bain Marie for reheating, you must ensure that a minimum temperature of 63°C can be maintained. You will only know if this is being achieved if you use a probe thermometer and record the temperature regularly.
- Reheating the rice will not get rid of *bacillus cereus*.

Personal hygiene:

- Always wash hands after using the toilet and after handling raw food, rubbish and chemicals. Use hot water and soap.
- Cover cuts and abrasions with waterproof plasters (preferably blue). Keep scaly, weeping or infected skin covered always.
- Do not work in the kitchen if you have sickness or diarrhoea.

Pulses

Always follow the instructions on the packaging on how to soak and cook dried pulses, such as red kidney beans, chick peas and lentils. Pulses can contain toxins that can cause food illness unless they are destroyed by using the correct method of soaking and cooking. Tinned pulses will have been soaked and cooked already.

Dairy

Dairy products such as milk, cream, cheese and butter must be kept chilled always.

Sushi

What is Sushi and Sashimi?

- Sushi refers to food consisting of cooked and pressed rice flavoured with vinegar and garnished with other food ingredients including raw or cooked vinegared seafood, marine fish or shellfish roe, vegetables, cooked meat or egg, which may or may not be wrapped in seaweed.
- Sashimi is food consisting of fillets of marine fish, molluscs, crustaceans, fish roe or other seafood to be eaten in its raw state.



Why do Sushi and Sashimi require a higher standard of hygienic production?

- Both contain raw food. As a result of the way they are prepared, there may be no cooking process to kill any food poisoning bacteria or parasites present.
- Fresh and frozen raw seafood can contain food poisoning bacteria such as Listeria, Salmonella, tapeworm, roundworm or flatworm parasites, all of which can be transmitted to customers who eat these foods raw. Almost none of this contamination can be seen, tasted or smelt and the food may appear perfectly normal.

What must I do to prepare Sushi and Sashimi safely?

- Only the freshest and best quality ingredients should be used.
- To kill roundworm or tapeworm larvae present, raw fish must be stored frozen so that it reaches at least -20°C for 24 hours.
- Only defrost the fish in small amounts – do not keep chilled ingredients for too long, and operate a stock control system based on the “first in, first out” principal.
- Fresh fish should be kept chilled (0°C – 5°C) and handled quickly when in use.
- Raw fruit and vegetables are fresh and washed before use.
- When preparing sushi, the final product must be hygienically packed or served and refrigerated until required.
- Sushi rice is freshly cooked daily and correctly acidified; this is not only a flavour component but also a very important food safety process.
- Wash fresh fish, raw fruit and vegetables and rice before use.
- Keep the food preparation area and food contact equipment clean and disinfected. Always maintain a high level of personal hygiene.
- Sushi must be freshly made every day to ensure maximum freshness. It has a **1-day shelf life** and must be made and sold on the same day. If not sold, the product must not be re-merchandised the following day, it must be written off as waste.
- Cloths and utensils are constantly sanitized with high quality food grade sanitiser.
- With exception of the sushi bamboo mat, wooden utensils must not be used. The bamboo is an intricate part of the sushi making process and without the mat we would not be able to shape the sushi accordingly, hence it is allowed.
- To safeguard the brand from possible cross contamination risks, the sushi mat must be wrapped with plastic wrap (clingfilm) for the ease of rolling of the rice into the sushi varieties in production, however the plastic wrap (cling film) must be removed and refreshed between each sushi variant in production.
- The sushi mat must be washed daily with food safety washing chemical, patted as dry as possible, sprayed with sanitizer and hung up to completely dry overnight in a dry area. If this is not done correctly then the mat will start to grow mould and must be discarded immediately.
- No slightly mouldy or mouldy sushi mats are allowed for the use of rolling sushi in SPAR stores.
- Sushi must be covered to prevent physical contamination.

Sushi Rice

Please be advised that according to the result of bacterial testing of the sushi rice, the below rules must always be adhered to:

1. The sushi rice can be prepared and cooked the previous afternoon and must be used up within 18 hours (by 12:00 am the next day)
2. Every batch of the sushi rice must be clearly marked with the production time and use by time.
3. The sushi rice must be prepared strictly under a designed recipe and the PH reading may be tested by the auditor.
4. The sushi rice prepared must be properly kept in a plastic tray, covered with plastic or containers with lids or in a cooler box. Do not refrigerate.

So, food safety hints when purchasing sushi to advise customers:

When you buy sushi to take home it is advisable to always transport sushi in a cooler bag.

If you are tempted to nibble with your fingers, don't forget to wash your hands before you do so!

If you have an outside chef preparing sushi in your store, ensure that they follow the same good practices contained in the Store Safe File.

Food stand inside or outside the store

Mobile food stands are becoming very popular in retail stores. This is to benefit the customer as quick, easy, pick up and go ready to eat foods e.g. freshly made pancakes or boerewors stands.

Mobile units must be fitted with a hand washing basin, hot and cold running water, hand soap, hand sanitizer and paper towel for washing hands.

Mobile units can be built with a small undercounter fridge and must be used should food products require refrigeration. All the food safety principles apply e.g. personal hygiene, temperature control.



Guidelines for food safety during temporary power outages

South Africa experiences many electrical power supply challenges that may result in random, scheduled or unscheduled power outages or load shedding. Sudden power cuts are frustrating and troublesome especially when they are prolonged. Appropriate decision-making before, during, and immediately after power outages/load shedding of electricity is necessary to protect consumers from unsafe food and ultimately minimize product loss. This is critical in all food preparation, displaying or storing of food to ensure food integrity is maintained during these times.

Each retailer must develop and communicate a comprehensive emergency plan to management in the store, in line with principles outlined below, to better equip affected departments to deal with these emergencies when they come. There are also the immediate problems of cooking, lighting and heating that need to be included in the emergency plan.

The food items of concern would be **all high-risk foods** and those that are potentially hazardous foods (PHF). Generally, PHF are moist, perishable foods in or on which bacteria can grow most easily during the time when the food is held in the danger zone temperature (5°C to 60°C).

If one knows the load shedding schedule, one can prepare for it as follows:

- Make sure you have appliance thermometers in your refrigerator and freezer. As is required by R. 638. An appliance thermometer will indicate the temperature in the refrigerator and freezer in case of a power outage and help you determine if the food is safe.
- Always double check the appliance thermometer against hand-held thermometer for accuracy of temperature, as explained in Module 11 – Temperature Control.
- We often forget about the food stored away in the refrigerator and freezer. If these foods warm up to above 5°C they can become unpleasant to eat or even make us very sick.
- To protect the food in your refrigerator and freezer during power cuts do not open the door of the refrigerator or freezer. It might be a good idea to hang a notice on the door to remind everyone.
- An unopened refrigerator will keep the food cool for 2 hours. A freezer that is half full will keep temperature up to 24 hours and a full freezer for 48 hours.
- Cover open refrigerated and frozen food display cases, especially vertical displays.
- Make sure the freezer is at or below -21°C and the refrigerator is at or below 2°C. Lowering fridge and freezer temperatures, would facilitate food products to retain temperature longer. Make sure that the heating elements of hot holding units are adjusted at a slightly higher temperature than what is legally required will also facilitate retention of food product temperatures during hot holding, during a power outage.
- Freeze containers of water for ice to help keep food cold in the freezer, refrigerator, or coolers/display chillers after the power is out.
- Freeze refrigerated items such as leftovers, milk, and fresh meat and poultry that you may not need immediately. This helps keep them at a safe temperature longer.
- Group food together in the fridge and/or freezer. This helps the food stay cold longer, however do ensure to allow for proper air circulation for product not yet frozen.
- Use ice and/or ice baths to rapidly cool small batches of hot food.
- Do not place hot foods in the refrigerator or freezers.
- It would be essential to invest in a generator with enough power to retain food at safe temperatures during power cuts.
- Regularly visit the Eskom and local power utility websites, to familiarize yourself with posted schedules of planned power outage notifications, as the information gets updated daily and this will enable you to better plan around the outage times.



**A POWER OUTAGE LASTING 2 HOURS OR LESS IS NOT
CONSIDERED HAZARDOUS TO FOOD THAT IS HELD IN
STORAGE OR DISPLAYED UNDER SAFE CONDITIONS
WHEN THE OUTAGE BEGINS.**

When there is a power outage, ensure the below takes place:

- Note and document the time at which the power outage begins.
- Note the temperature of the food when the power outage begins, hot and/or chilled and frozen.
- Discard food products that are in the process of being cooked and have not yet reached the final cooking temperature.
- Accommodate the scheduled Food Safety audit and auditor, ensure the auditor gains unobstructed access to all facilities to monitor overall maintenance of food safety parameters. If you are trading during power outages the audit will provide you due diligence records that you are adhering to food safety standards in the event of a complaint. Also, it must be noted that the auditor will note that there was a power problem at the time of audit – note that the auditors look at previous records and log sheets that support continuous compliance and not only the temperatures monitored at time of audit.
- If you plan to eat refrigerated or frozen meat, poultry, fish or eggs while they are still at safe temperatures, it's important that the food is thoroughly cooked to the proper temperature to assure that any food borne bacteria that may be present is destroyed.

When the power is restored:

- Note the time when the power outage ended.
- Note the temperature of the food when the power outage ended.
- Identify PHF that may have been in the temperature danger zone.
- If practical, separate packages of food in refrigeration units and freezers to allow for faster re-cooling.

Discontinue food preparation if any of the following conditions exist:

1. Inability to properly wash, rinse and sanitize utensils, no hot water, inadequate water pressure.
2. Inoperative hood ventilation and make-up air supply systems in conjunction with gas or solid fuel heating and cooking equipment.
3. There is a lack of enough light in food preparation areas to allow for safe food preparation, cleaning and sanitising of food contact surfaces.
4. Unsafe food temperatures. (Refer to Table A below and Table B on the next page.)

Refrigerated PHF

Use Table A below as a guide for handling PHF stored in refrigeration units during power outages:

TABLE A

Duration of Power Outage (hours)	Food Temperatures		
	$\leq 8^{\circ}\text{C}$	8°C to 10°C	$\geq 10^{\circ}\text{C}$
0-2	PHF can be sold.	Immediately cool PHF to 5°C or below within 0-2 hours.	PHF CANNOT BE SOLD
2-3	PHF can be sold, but must be cooled to 5°C or below within 2 hours.	Immediately cool PHF to 5°C or below within 1 hour.	PHF CANNOT BE SOLD
4+	Immediately cool PHF to 5°C or below within 1 hour.	PHF CANNOT BE SOLD	

Frozen PHF

Any food that is marketed as a frozen product and has thawed during storage/holding or display, but the surface temperature of which has not exceeded 5°C may be refrozen: Provided that such refrozen product shall be handled in accordance with good manufacturing practices.

PHF in hot holding units

Use Table B below to determine what to do with PHF that is held in hot holding units and is below 60°C at the time the power is restored:

TABLE B

Duration of Power Outage	Food below 60°C in Hot Holding Units When Power is Restored
2 hours or less	1. May be sold if reheated to 75°C and then held at 60°C or above; or 2. May be sold if rapidly cooled to 5 °C or below within 2 hours following restoration of power.
More than 2 hours	Food Cannot be sold

***If food cannot be rapidly cooled as specified in the tables above, it should not be sold. ***

Disposal of food

- PHF that has been subjected to unsafe temperatures prior to the power outage might not be safe to eat even if the procedures listed in Table A and Table B have been followed.
- Food handlers should never taste food to determine whether food is safe to possibly keep. Considering the cost of food, one is loathe to throw it away, however you cannot taste or smell when food is unsafe. Remember you also cannot see bacteria with the naked eye.
- When a food smells “off” it usually means spoilage and the food should not be consumed, but unsafe food may still smell and taste perfectly fine.
- If it is determined that food must be discarded, document the type and amount of food and the reason for disposal for insurance and regulatory purposes.
- Small volumes of food to be discarded can be denatured with a cleaning product (food safe and food grade) and placed in the outside refuse bin.
- To discard large volumes of food, contact your refuse disposal company or your local landfill operator for disposal instructions.
- If there are any questions regarding the safety of specific foods, contact your local environmental health practitioner.
- The following table lists examples of foods that can be discarded or saved once the power is restored.
- **WHEN IN DOUBT, THROW IT OUT!**

When To Save It and When To Throw It Out

In conjunction with the guidelines provided in Table A (Refrigerated PHF) and Table B (PHF in hot holding units), use the table below (pages 18 - 20) listing specific food products to help you decide when to save it or discard it.

Type of Food	
Meat, Poultry, Seafood	
Raw and leftover cooked meat, poultry, fish or seafood; soy meat substitutes	Discard
Thawing meat and poultry	Discard
Salads: Meat, tuna, shrimp, chicken or egg salad	Discard
Gravy, stuffing, broth	Discard
Lunch time meats, hot dogs, bacon, sausages	Discard
Pizza with any topping	Discard
Canned hams, meats and fish that are opened and labeled "Keep Refrigerated"	Discard
Casseroles, soups and stews	Discard

Cheese	
Soft Cheese: Blue, Roquefort, Brie, Camembert, Cottage Cheese, Cream Cheese, Edam, Rocotta	Discard
Shredded or grated cheese	Discard
Low fat cheese	Discard
Hard Cheese: Cheddar, Swiss, Parmesan, Provolone, Romano	Keep
Processed cheese	Keep
Grated Parmesan, Romano or combination (bottle, shakers, jar)	Keep

Vegetables	Discard
Fresh vegetables, cut	Discard
Fresh vegetables, uncut	Keep
Fresh mushrooms, herbs and spices	Keep
Greens, pre-cut, pre-washed, packaged	Discard
Vegetables, cooked	Discard
Vegetable juice, opened	Discard
Baked potatoes	Discard
Potato salad	Discard
Casseroles, soups, stews	Discard

When To Save It and When To Throw It Out

Type of Food	
Dairy	
Milk, cream, sour cream, buttermilk, evaporated milk, yogurt, soy milk	Discard
Butter, margarine	Keep
Baby formula, opened	Discard
Eggs	
Fresh eggs, hard cooked eggs in shell, egg dishes, egg products	Discard
Custards and puddings, quiche	Discard
Fruits	
Fresh fruit, cut	Discard
Fresh fruit, uncut	Keep
Fruit juices, opened	Keep
Canned fruits, opened	Keep
Dried fruit, raisins, candied fruit, dates	Keep
Sliced or shredded coconut	Discard
Sauces, Spreads, Jams	
Openend mayonnaise, tartar sauce, horseradish	Discard
Peanut butter	Keep
Jelly, relish, mustard, olives, pickles	Keep
Worcestershire, soy, barbecue, hoi sin sauce	Keep
Fish sauce, oyster sauce	Discard
Openend vinegar-based dressing	Keep
Openend creamy-based dressing	Discard
Spaghetti sauce, opened	Discard

When To Save It and When To Throw It Out

Type of Food	
Bread, Cake, Cookies, Pasta, Grain	
Bread, rolls, cakes, muffins, quiche breads, tortillas	Keep
Refrigerator biscuit, rolls and cookie dough	Discard
Cooked pasta, rice and potatoes	Discard
Pasta salad with mayonnaise or vinaigrette	Discard
Fresh pasta	Discard
Cheesecake	Discard
Breakfast foods: waffles, pancakes, bagels	Keep

Pies and Pastry	
Cream filled pastries	Discard
Pies: custard, cheese filled or chiffon, quiche	Discard
Fruit Pies	Keep

Re-opening

If you voluntarily closed your facility, the following conditions should be verified prior to resuming food preparation and/or sale of potentially hazardous foods:

1. All unsafe potentially hazardous food has been discarded.
2. Electricity and gas services have been restored.
3. All circuit breakers have been properly reset as needed.
4. All equipment and facilities are operating properly, including:

- Lighting
- Refrigeration
- Hot holding
- Ventilation
- Toilet facilities
- Hot (minimum 49°C) and cold potable water for washing up sinks
- Hand washing facilities
- Proper dishwashing