

Candidate Support Pack

SVQ in Food Manufacture

Maintain workplace food safety standards in manufacture

Unit F2MD 04



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Introduction

About this pack

Welcome to the candidate support pack for Unit F2MD 04: Maintain Workplace Food Safety Standards in Manufacture. This is a mandatory Unit in the SVQ in Food Manufacture at level 2. This pack will help you to develop your knowledge and skills to meet the requirements of the Unit.

The pack is divided into four sections. Section 1 covers the performance requirements, Section 2 the knowledge requirements, Section 3 the sample questions and answers, and Section 4 the evidence requirements of the Unit.

We hope that you enjoy using this pack and that you find it informative.

Information about the SVQ in Food Manufacture

The SVQ in Food Manufacture at level 2 is a nationally recognised qualification, and has been developed by SQA and Improve, the Sector Skills Council for Food and Drink Manufacture. To achieve the full SVQ in Food Manufacture at level 2, you will need to successfully achieve the following mandatory Units:

SQA code	Unit title	Improve code	SCQF level	SCQF credit
F2MD 04	Maintain Workplace Food Safety Standards in Manufacture	206	5	6
F2MB 04	Maintain the Workplace and Health and Safety in Food Manufacture	207	5	6

This pack covers the mandatory Unit Maintain Workplace Food Safety Standards in Manufacture (6 SCQF credit points at SCQF level 5¹). It is one of two mandatory Units you will need to achieve the SVQ.

You will also need to achieve six optional Units. There is a wide range of options to choose from. Your assessor will be able to advise you of the best optional Units to suit your job role.

¹ The SCQF provides the national common framework for describing all relevant programmes of learning qualifications in Scotland. The level a qualification is assigned within the framework is an indication of how hard it is to achieve. There are 12 levels, from level 1 for Access 1 through to level 12 for doctorates. The number of credit points for a qualification is based on the amount of time that an 'average' learner might take to achieve the Unit/qualification. One SCQF credit point represents 10 hours of learning time. For further information on SCQF go to www.scqf.org.uk.

Core Skills

Completion of Unit F2MD 04, Maintain Workplace Food Safety Standards in Manufacture, provides opportunities for developing Core Skills in *Problem Solving* at Access 3.

Information about this Unit

This Unit is about keeping your workplace clean and hygienic. It involves understanding the importance of minimising the risks of product contamination, cross-contamination, and food poisoning, pests and infestation, storage, and disposal of waste.

When you have completed this Unit you will be able to:

- maintain personal hygiene
- maintain workplace hygiene

In order to be assessed as competent you must demonstrate to your assessor that you can consistently perform to the requirements set out below. Your performance evidence must include at least one observation by your assessor.

Section 1: Performance requirements

To complete this Unit you need to show that you follow all the working practices that make the workplace clean and hygienic. There are more and more legal requirements that aim to make sure that food is produced safely. Everybody working with food must learn about these legal requirements and how to work with food safely.

Food safety involves working to standards that are set by regulators to protect your customers and colleagues from disease and infection that can result from incorrect handling and storage of meat. You need to help your colleagues create a working environment which has food safety as a top priority at all times.

In order to be assessed as competent you must demonstrate to your assessor that you can consistently perform to the requirements of the standards that are set out below.

Your performance evidence must include at least one observation of you carrying out your normal work by your assessor.

1 *Keep the workspace clean*

- a) Keep your immediate work area clean and tidy
 - by adopting a ‘clean as you go policy’ and immediately after carrying out a task cleaning your work surfaces and the surrounding work area
 - everything must be visually clean and tidy
 - return all unused raw materials to the correct storage area as soon as possible
 - remove all used equipment and tools to the equipment wash sink for cleaning as soon as possible, and return unused items to their original storage area
 - where food or other products such as packaging materials have fallen on the floor during production they must be cleaned up and placed in the correct waste disposal container as soon as possible
 - waste must not be allowed to accumulate

- b) Keep tools, utensils and equipment in good order, in a hygienic condition and stored correctly
 - tools, utensils, and equipment require to be cleaned immediately after use, and dried thoroughly, to maintain their good condition
 - tools, utensils, and equipment require to be cleaned using the recommended cleaning materials
 - all tools, utensils, and moveable equipment need to be returned to their original storage area after cleaning

- c) Keep ingredients and products separate and in their assigned places
- separate storage areas for *raw* and *cooked* foods
 - use colour-coded equipment and utensils for different types of foods
 - return all products to their correct storage areas as soon as possible
 - separate storage area for dry ingredients

2 Work in a way that keeps food safe

- a) Follow procedures to dispose of food waste and scraps promptly and hygienically
- by using the correct waste bin for specific waste following the company waste disposal policy
 - by not allowing waste to build up in food preparation areas
 - by following the hand-washing procedure after dealing with waste
- b) Avoid product contamination and cross-contamination at all stages of processing operations
- by maintaining good personal hygiene
 - by using correct colour-coded equipment
 - by storing raw materials and finished products correctly at all stages of the process
 - by keeping the floors in your work area clean
 - by keeping work surfaces and equipment clean
 - by preventing pest infestation
- c) Follow the correct procedure for dealing with product contamination and cross-contamination
- by informing the most senior person on the premises
 - by following company traceability procedures to identify contaminated product/s
 - by labelling the contaminated product with a 'Do Not Use' notice until a decision is made as to what is to be done with the product
- d) Follow your organisation's procedures for items that may cause allergic reactions
- by using separate storage and preparation areas for products known to cause allergic reactions
 - by using separate production times for products known to cause allergic reactions
 - by thorough cleaning and disinfection of tools, equipment, and utensils
 - by applying food labelling that lists all product content

Observation checklist

The performance requirements for this Unit are very practical and as such are likely to be assessed through observation of you undertaking normal working duties.

The observation checklist on the next page can be used by assessors to record evidence of you carrying out tasks that reflect the required performance of the Unit. This checklist has been provided as an example. Assessors can adapt it, use it as it is, or devise their own checklist.

Observation checklist – Maintain Workplace Food Safety Standards in Manufacture (206)

Candidate's name:			Date:	
Assessor's name:			Date:	
Assessment overview				
Please give details of what was observed and the date the observation took place:				
Candidate activity		Assessor confirm	Evidence/comments etc.	
How did the candidate:				
Keep the workspace clean				
1.1	Keep your immediate work area clean and tidy			
1.2	Keep tools, utensils, and equipment in good order, in a hygienic condition, and stored correctly			
1.3	Keep ingredients and products separate and in their assigned places			
Work in a way that keeps food safe				
2.1	Follow procedures to dispose of food waste and scraps promptly and hygienically			
2.2	Avoid product contamination and cross-contamination at all stages of processing operations			

2.3	Follow the correct procedures for dealing with product contamination and cross-contamination		
2.4	Follow your organisation's procedures for items that may cause allergic reactions		
Record feedback given on the assessment plan and any review notes.			
Candidate's signature		Date	
Assessor's signature		Date	
Internal verifier's signature (if sampled)		Date	

Section 2: Knowledge requirements

This section provides background information for the knowledge and understanding requirements. At appropriate points, you will see reference to the K numbers. These numbers link directly to the knowledge requirements of the National Occupational Standards, specified by Improve.

Introduction

The main purpose of hygiene in the workplace is to produce a product that is fit to eat and to prevent food poisoning.

To maintain the required levels of hygiene in the workplace everyone must:

- be continuously aware of food risks in the workplace
- follow hygienic working practices

Hygiene starts with each person in the workplace and means that everyone must:

- follow the correct hand-washing procedures
- wear the appropriate clothing
- maintain the cleanliness of hair, skin, nails, and personal clothing
- follow the rules on jewellery and personal items

To keep the workplace clean and hygienic we all must:

- dispose of waste and scraps correctly
- keep the immediate work area clean and tidy
- make sure equipment is fit for use
- keep ingredients and products in their proper place

If everyone follows all the rules correctly, food poisoning will not be a problem.

Food contamination (K7, K8)

All the products made in the food and drink manufacturing industries are going to be eaten or drunk.

The main food hazard is food poisoning. Every day thousands of people suffer from this. Many cases go unreported, and it is estimated that one person in 50 will be affected every year. One cause of food poisoning is contamination. This can happen at any point in the production process.

There are three types of contamination of food and drink products:

- bacterial contamination, which happens because people do not understand the importance of following hygiene rules and take short cuts

- physical contamination from foreign bodies that get into the product, such as glass, metal, or plastic
- chemical contamination from waste or cleaning chemicals

There are several ways we can prevent products being contaminated by ourselves and we will look at each in turn.

Bacteria (K8, K9, K10)

Bacteria are a major source of food poisoning. Some people call them ‘germs’.

Bacteria are tiny living things, which are so small that we can only see them through a microscope.

Not all bacteria are ‘bad’. Some are used for making food such as cheese and yoghurt. The bad ones are fewer in number and cause sore throats, septic cuts and spots, and tummy bugs. Some can even produce poisons, which may cause food poisoning.

The bacteria only become dangerous if they are transferred from yourself to the food, either directly by your hands or indirectly from dirty clothes utensils or equipment.

Certain bacteria can cause serious illness, and the symptoms can include:

- vomiting
- diarrhoea
- nausea
- stomach and abdominal pains
- fever

One of the most serious hazards in food and drink production is contamination of the product by bacteria.

Bacteria multiply very rapidly by simply splitting in two every 20 minutes or so, eg see table below.

Table 1

1 hour	8
2 hours	64
12 hours	68,719,476,736

Bacteria need four things to be present for them to multiply:

- food

- warm temperature
- moisture
- time

Bacteria will multiply rapidly between 5 and 63°C. Above this temperature multiplication will be prevented but some bacteria may survive. Between 75 and 100°C most bacteria will be destroyed. Above 100°C most spore-bearing bacteria will be destroyed.

That is why it is very important to store all products at the correct temperature and to cook them to the correct temperature.

The maximum legal temperature that products may be stored at is 8°C for perishable foods and 7°C for raw meat and poultry. Chills in food-producing factories will normally be kept at less than 5°C.

The temperature of a domestic freezer should be –18°C. Commercial cold stores may be as low as –30°C

Cold temperature will stop bacteria multiplication, but will not kill bacteria. They become dormant until the temperature rises again.

Signs of food spoilage include:

- odours
- discolouration
- unusual taste
- blown cans or leaking packs
- slime/stickiness
- production of gas

Some bacteria you may have heard of are:

- Salmonella
- E. coli
- Staphylococcus

Table 1 shows how fast bacteria like salmonella can multiply if the conditions are right. Bacteria particularly like the types of food that are high in moisture, such as:

- meats and meat pies
- chicken and chicken products
- milk
- cream
- egg products
- stocks
- sauces
- soups

- stews

These foods are usually called perishable foods as they can 'go off' easily.

Bacteria do not like the following types of food:

- acid foods (lemon juice, pickled products)
- highly salted foods (salted meats, salted fish)
- foods high in sugar (jams, syrups)
- fatty foods (butter, margarine, lard, cooking oil)
- dry foods (flour, spices, pepper, breadcrumbs)

However, if these products become mixed or diluted with water or milk or become contaminated in some way, then bacteria may grow.

Each type of bacteria has a 'best' temperature for growth. Most grow best at body temperature of 37°C. At lower temperatures, bacteria slow down their growth rate. The danger zone of bacterial growth is between 5°C and 63°C. Bacteria will grow rapidly in foods, particularly in high risk foods, that are left within the temperature danger zone. (See table 2: temperature control image below.)

There are three main sources of bacteria that you as a food handler can transmit to other people:

- bacteria on **you**
- bacteria in your **gut**
- bacteria picked up on **your hands**

Bacteria can be found in:

- secretions from the nose, mouth, and throat
- skin
- dust on clothing
- dandruff and loose hairs from the scalp

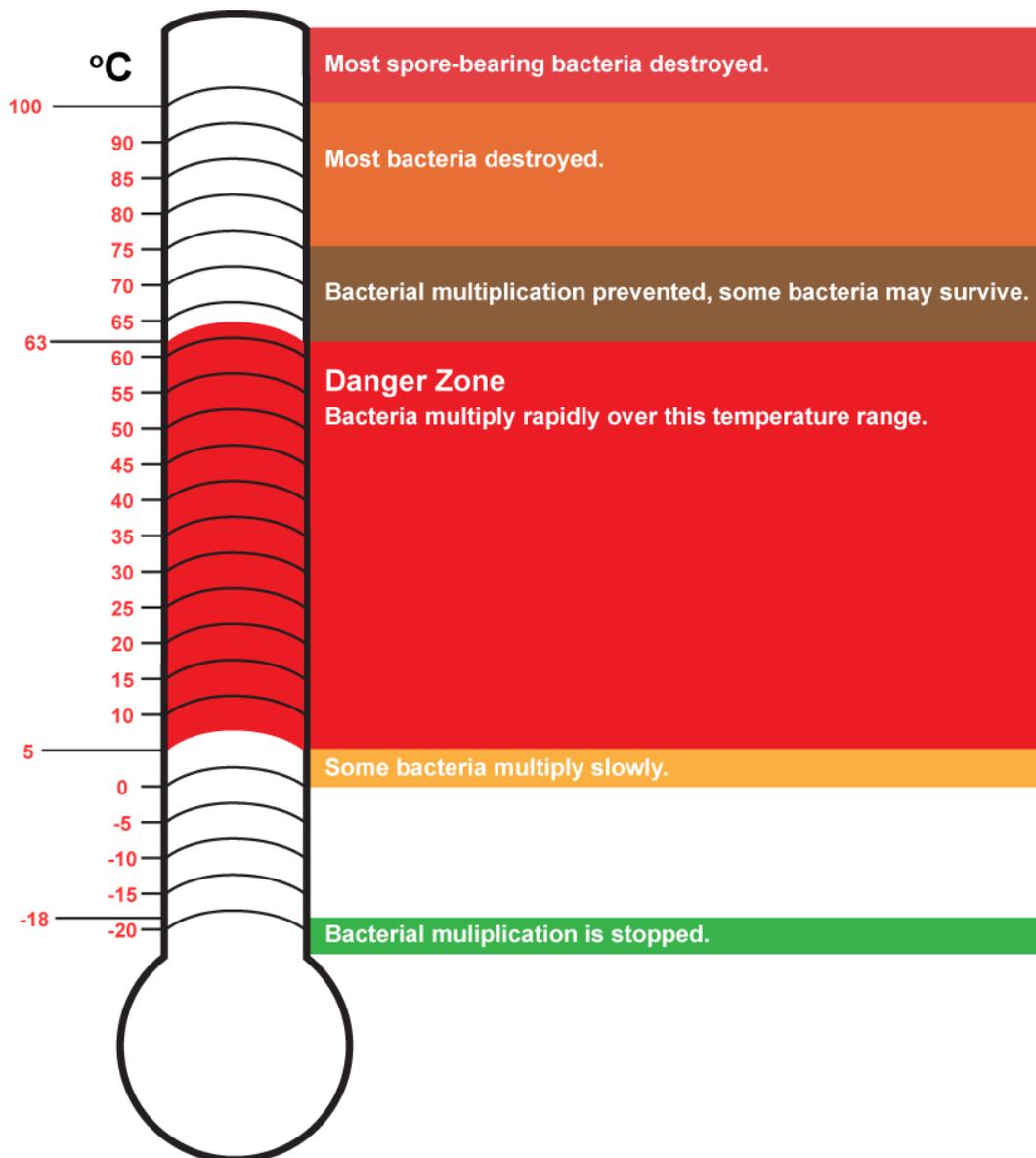
Bacteria are also found on any cuts or abrasions we get on our skin, particularly if the sore becomes infected and turns septic. This includes spots and boils.

We can also pick up bacteria from other areas, especially in the toilet, for example:

- on the flushing lever
- on the toilet door handle
- on the handles of the taps

It is important that toilets are cleaned correctly every day to prevent a build-up of bacteria.

Table 2: Temperature control



Physical contamination (K6, K7)

All products that are mass produced will go through a metal detector at various times during production and be rejected by quality controllers if they are rejected by the metal detector.

Foreign bodies such as hair or plastic will not be detected so easily which means that you should be vigilant on the production line.

Apart from ourselves, other things in the workplace can spoil the products we produce. This is called cross-contamination and can include:

- insects
- mice
- rats
- birds
- dust
- refuse and waste food

There are many problems associated with pests:

- pests contaminate food
- pests damage buildings
- pests cause product wastage
- customer reputation can be harmed
- legal action, possibly including factory closure, may follow

We must know the signs to look for and report what we find to the appropriate person. The signs can be:

- droppings
- feathers or fur
- damaged food stocks
- live and dead bodies
- egg cases of cockroaches

Pests can enter the workplace through very small spaces such as holes or cracks in the walls or floors. The warmth and the smell attract them.

Insects

Several insects may carry food poisoning bacteria to food, but flies and cockroaches are the greatest hazard because of their feeding habits and the places they find their food.

Rodents

Both rats and mice can be found in buildings. They enter through very small spaces and can live in wall cavities. They carry bacteria on their feet and fur, and contamination of food takes place through their droppings, urine, hairs, and gnawing.

Dust

There are always large numbers of bacteria in dust and floating about in the air. All food and food products should be covered when cleaning is carried out, especially dusting and sweeping.

Refuse and waste

Waste and unfit food must not be allowed to build up in food and drink preparation and production areas. All waste containers must be kept clean and have tight-fitting lids to prevent flies and rodents getting in to breed.

You may have to wear special protective clothing when dealing with waste, and wash your hands thoroughly after having done so.

Prevention (K6)

- Make sure that the premises do not attract or provide homes for pests
- Keep undergrowth away from the outside of the buildings
- Make sure that any waste stored outside is in bins with tightly fitting lids
- Make sure the bins are emptied and cleaned regularly
- Follow all the rules for good housekeeping
- Remove all spillages at once
- Check regularly for any signs of pests

Once pests are in the workplace, we must use competent pest control contractors to help us to get rid of them. This may mean putting in bait boxes, traps, and electric fly killers.

To control pests and vermin, the workplace must be kept clean and tidy and any waste must be dealt with correctly.

No matter how carefully we use the raw products, ingredients, and materials, there will be some waste. There will be a different type of waste container for each type. Any container stored outside must have a closely fitting lid to keep out pests.

Before you start work, you must make sure that the correct waste containers are in place and that they are clean and undamaged.

Chemical contamination (K7)

Chemicals are often used to clean the workplace and equipment. This can be very efficient and effective, but chemical contamination can happen if time is not taken to rinse all the equipment and utensils after cleaning.

This can happen when pesticides or cleaning chemicals are used. Ingredients should never be stored near poisonous chemicals, and chemicals should never be stored in empty food and drink containers.

Chemical contamination can also happen after maintenance work if the correct cleaning routine is not followed.

If the workplace is deep cleaned using a chemical foam or spray, all portable equipment must be cleaned correctly and put away in the right place to prevent it from becoming contaminated with the cleaning chemicals.

Corrective action

If you notice any damage to the products you are dealing with that has been caused by contamination or infestation, **you must report it at once**.

The product must be isolated and the source of the problem identified.

The product must be disposed of correctly so that there is no danger of further cross-contamination.

The main source of bacterial food contamination is **you**.

Everyone likes to think that they are clean. However, your whole body is covered with bacteria — not all of them are harmful. They only become dangerous when you transfer them somehow from yourself to food, either directly or via your hands, utensils, or clothes. This happens if we do not follow strict hygiene rules.

Let us look at the steps you must take to prevent contamination from taking place.

Personal protective clothing (K1)

It is sometimes difficult to understand why certain clothing must be worn in a food or drink factory. Some of it is to protect us from harm, but other items are worn for hygiene purposes. There are two reasons for this:

- everyday clothing may be dirty and come into contact with the food being handled
- to protect the food handler's own clothes from becoming contaminated with food debris

The Food Safety (General Food Hygiene) Regulations 1995 state that:

A food handler must wear suitable clean, and where appropriate, protective clothing.

The following table shows the type of clothing that might be worn for hygiene reasons.

Part of the body	Clothing
Head	Hair net, cap, hard hat
Face	Snood to cover any facial hair such as beard or moustache Mask to protect from fumes or dust
Body	Coverall, coat, jacket and trousers
Hands	Latex gloves, work gloves
Feet	Clogs, wellington boots, boots with steel toecaps

In order to obey the law and your company rules, you must know:

- what should be worn
- when it should be put on
- what order it should be put on
- where to put soiled clothing
- where to store your own clothing
- how to report any damage to your clothing
- how to replace any damaged clothing

Your work clothing must cover all your own clothes, and must fasten securely at the wrist. There must not be any external pockets and all fastenings such as buttons must be secure.

You may need to wear different clothing in different areas, such as ‘high care’ production.

If the correct protective clothing is not worn, it can result in contamination of the product being made.

How to wash your hands (K1)

In all food and drink factories, no matter how small, there must be specific wash-hand basins provided for food handlers. They may be in:

- the toilets
- the changing area
- the entrance to the product preparation/production area

These wash-hand basins must not be used for any other purpose other than washing your hands.

Under **The Food Safety (General Food Hygiene) Regulations 1995**, you are not allowed to wash your hands in a food preparation sink.

We all think we know how to wash our hands properly. A quick swill under the tap will do won't it?

NO!

The golden rule is:

Wash your hands properly at all times.

This should be at least:

- when entering the factory
- after having a break
- after touching your face, nose, or mouth
- after disposing of refuse
- after finishing one job and before starting the next
- after smoking
- after any situation that may have caused contamination
- after going to the toilet

It is better to wash your hands under running hot water than to fill a basin. In this way you do not rinse your hands in dirty water.

Cold water will not remove grease, dirt, or bacteria from your hands.

You should wash your hands using:

- bactericidal soap
- dry towel
- sanitiser lotion or a similar product

Fingernails should be kept short and free from nail varnish.

Before you wash your hands you should:

- take off all rings and jewellery such as bracelets and watches, and leave them in a safe, secure place — **they should not be worn in food or drink production area**
- roll your sleeves up

When washing your hands:

- wet your hands and apply liquid soap
- work up a good lather

- pay particular attention to the wrists, forearms, and in between the fingers

Wash every part of your hands using the bactericidal soap provided and hot water paying particular attention to:

- the back of the hands
- the back of the thumbs
- between the fingers and between the thumb and the fingers
- your nails (scrub them with a nail brush)

It may take a little time longer to wash your hands properly, but to achieve hygienic results **it is essential**.

Once your hands have been washed and rinsed correctly, use either paper towels or a hot air drier to dry them as provided.

Never dry your hands on your apron, overalls, or cloth!

If you do, you are contaminating them again immediately.

If paper towels are used, remember to put them in the correct bin after use.

Always use the sanitiser if provided.

Personal hygiene (K1, K2, K3, K4)

Personal care

Food and drink can be contaminated by our body's smells. These can be either from not having washed ourselves thoroughly or by using perfume or other strong-smelling toiletries.

These should be avoided and unperfumed deodorants used.

We all have many personal habits that would not be acceptable in a factory producing food and/or drink. Here are some examples:

Personal habits and personal care	Why not?
1. Picking your nose, ears or scratching yourself	Staphylococcus bacteria are frequently found in the nose, ears, and skin, and may be passed into food
2. Dipping your finger into food to taste it, or licking a spoon and putting it back into the food without washing it	Bacteria in the mouth (Staphylococcus) will be passed onto the finger or spoon and into the food
3. Sneezing or coughing over food	When you sneeze you expel droplets of moisture which contain Staphylococcus bacteria onto the food you are preparing
4. Wearing dirty overalls, no head covering, and leaving cuffs undone	Bacteria will grow on dirty clothing and can be passed by the hands or the clothing itself onto other foods We will scratch and touch our hair if it is left uncovered Undone cuffs may dip into food
5. Dressing a cut or sore with a cloth bandage	The bandage becomes easily soiled with food particles, especially if wet, and bacteria will grow both on the inside and the outside Hands cannot be washed easily and bacteria can pass through a wet bandage
6. Wearing jewellery, especially rings, bracelets, and earrings	Staphylococcus bacteria can accumulate under jewellery, especially if it is not removed before washing There is also a danger that stones from rings, earrings, or pendants may fall into food
7. Touching or combing hair in production areas	Staphylococcus bacteria are found in the scalp and in dandruff Loose hairs fall off onto food and may cause cross-contamination Do not remove head covering until work is finished
8. Smoking	It is illegal to smoke in a food preparation area Staphylococcus bacteria can be transferred from the lips to the hands while smoking Ash may also fall onto food and this looks

	<p>unsightly</p> <p>Smoking often also causes coughing.</p>
<p>9. Eating snacks or nibbling food from the line</p>	<p>The process of eating produces saliva and as the hands are in contact with the mouth, they become contaminated with Staphylococcus bacteria</p>
<p>10. Using a cloth for wiping hands</p>	<p>Cloths are probably the most unhygienic objects in the factory apart from your hands</p> <p>They may be wrongly used for wiping spillages, cleaning hands, or wiping boards</p>

Hair care

Hair should be kept clean and free from dandruff. It should be completely covered at all times by either a cap or a net. This is to prevent any falling into the product you are dealing with. Hair must be combed outside of the food-handling area and not inside.

Hairgrips or clips should not be worn outside the head covering. Again, we do not want foreign bodies falling into the product.

Beards and moustaches should be kept trimmed and clean.

Personal items

Your company may allow people to wear an 'SOS' pendant if they suffer from certain medical conditions such as diabetes. A manager must always clear this.

General health and reporting of illness

Food handlers should be in good health and generally fit.

You must report any symptoms of sickness and/or diarrhoea and/or bowel pains and disorders immediately, and this includes any sickness in close relatives.

If you have an infected wound or skin condition such as dermatitis you must report to the correct person.

Many of us travel abroad, and may feel unwell on our return. If this happens, we must report to the correct person when we return. This may mean us having to take a stool test and staying away from work until we are told we can return.

If we suffer from any of these symptoms, we must not handle food.

When we are in the workplace, any cuts, abrasions, and burns must be covered completely with a conspicuous-coloured waterproof dressing. These often have a metal strip inserted, so a metal detector can detect them if they are lost.

Any loss of wound dressing must be reported to your supervisor/team leader without delay.

Food poisoning can prove fatal in certain groups of people such as the elderly and very young, or those with low immunity levels.

This is why it is very important to report any outbreaks of food poisoning, so that the source may be found and those most likely to have been affected traced and treated.

Cleaning and disinfectant (K5)

Cleaning of surfaces and equipment is a very important job in all food and drink businesses and takes place all the time.

Why do we clean?

There are many reasons for cleaning and the following list details the seven major ones:

- to remove any matter on which bacteria might grow
- to disinfect equipment and surfaces
- to remove anything that might encourage pests
- to reduce the chance of foreign matter contaminating the products
- to make sure there is a safe and pleasant working environment
- to give a positive impression to customers and visitors
- to comply with the law

To clean properly, you need to understand:

- what equipment you need
- what chemicals to use
- what the chemicals will do
- how to use them properly

You may come across the following terms when you are trained to clean:

Disinfection	Reducing bacteria to a level that is safe and will not cause food spoilage
Detergent	A chemical used to remove grease, dirt, and food particles
Sanitiser/disinfectant	A chemical used for disinfection after cleaning has been carried out. Boiling water and steam can also be used as a sanitiser/disinfectant

Cleaning and disinfectant

The **Food Safety (General Food Hygiene) Regulations 1995** state that:

- food premises must be kept clean and in good repair
- the walls, floors, and food-contact surfaces of food rooms must be easy to clean and, where necessary, disinfect
- conveyances and/or containers used for transporting foodstuffs must be kept clean and maintained in good repair and good condition to protect foodstuffs from contamination
- food equipment must be kept clean and in good repair and condition to enable it to be kept clean and, where necessary, disinfected to minimise the risk of food contamination

To make sure that the company you work for meets its legal duties, cleaning must be planned so that all areas and plant and equipment are cleaned in the proper order. There is no point in cleaning the floor before cleaning the work surfaces. Waste will drop and the floor will have to be cleaned again!

There will be a cleaning schedule drawn up covering:

- the order in which things are to be cleaned
- the equipment to be used
- the type of chemicals to be used and the amount needed
- the names of those who will be involved in cleaning

Each piece of plant and equipment will have instructions telling you how to carry out the cleaning. You must know where to get these instructions and follow them exactly at all times.

Remember: Do not use the same cleaning equipment for work areas and toilet areas.

There are normally six stages in cleaning. Let us look at each in turn.

Preclean

This is the first stage in the process and means getting rid of surface dirt and waste. This might be wiped or swept away.

Main clean

This loosens the surface grease and dirt using a detergent.

Rinse

This will remove loose dirt and any trace of detergent used in cleaning.

Disinfection

This will destroy any bacteria left after cleaning.

Final rinse

This is to remove any disinfectant that might contaminate the food or drink product to be made.

Drying

The preferred way to do this is to let it happen naturally by evaporation.

Preparing to clean

Before you begin, it is important to tell everyone in the area that cleaning is to take place and check with the area supervisor that it is all right to start cleaning.

You may have to put up cones and hazard warning signs to let others know what will be happening, and also to prevent people passing through the area being cleaned.

This will also warn them that floors may be wet and slippery, and prevent slips and falls.

The first thing to be done is to make sure you understand the cleaning instructions, and who to ask if you are not sure. This is very important because if the cleaning is not carried out correctly, bacteria will be left, the next batch of product could be contaminated, and food poisoning could happen.

Check the area you have been given to clean to make sure that all product and ingredients have been put away, all lids are on containers, and any cupboard doors are closed securely.

The next thing to do is to check that your cleaning equipment is in good order and fit for the purpose, and that you have enough chemicals of the correct type for the job.

If your cleaning equipment is damaged or dirty, it will not be fit to do the job properly. Dirty equipment will spread the bacteria and dirt you are trying to get rid of. Faulty equipment will not clean correctly.

Always check the equipment you are using to make sure:

- it is in good condition and fit for the purpose
- all handles are fixed in place securely

Precleaning is usually done with a sweeping brush, shovel, hand brush, and dust pan. These are commonly made of plastic, so they can be properly cleaned after use.

Activity 1

Who do you check with before you start cleaning?

What equipment do you use to preclean?

Where is it stored?

Who would you tell if the equipment was faulty?

What would you do with faulty equipment?

Where would you get replacement equipment?

Personal protective equipment

Make sure you are wearing the right personal protective clothing for the job you are going to be doing and that it is in good condition. This may be:

- rubber apron
- rubber gloves
- rubber boots
- body cover
- head covering
- face cover such as a mask or visor

Activity 2

What personal protective equipment must you wear when you are precleaning?

Why must you wear this personal protective equipment when you are precleaning?

Cleaning chemicals

The chemicals used in cleaning must be stored well away from any food or drink ingredients or products. They are often supplied in drums or plastic containers. Drums may have a special device that will measure out the exact quantity of chemical to be used.

All dangerous chemicals will have a label showing:

- the name of the chemical
- the name and address of the supplier
- instructions for use
- actions to take to deal with an accidental splash or spill

Chemical containers are also marked with a hazard warning — an orange label with a black symbol. This label will tell you the harm that the chemical can cause.

Here are some examples of hazard signs you may see:

Highly flammable

Has a flash point (ie easily ignited) at room temperature or below

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Irritant

May cause irritation to the skin

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Harmful

If inhaled, ingested, or penetrates the skin may cause harm

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Corrosive

May damage or destroy living tissue (the effect may be delayed)

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Toxic

If inhaled, ingested, or penetrates the skin may cause serious illness or death

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The chemical will have been supplied with a **Hazard Data Sheet**, which will give more information. This may be stored in your chemical store or with your first aider.

Activity 3

What chemicals do you use when cleaning?

What harm could they do to you?

Chemicals must be treated with respect and used correctly. They are usually diluted for use with water. If you make the solution too weak, the chemical will not do the job correctly. If the solution is too strong, there may be difficulty in rinsing it away and product will be wasted.

Permit to work

Sometimes, when deep cleaning is to be carried out using hazardous chemicals, a PERMIT TO WORK is needed. This type of cleaning often happens at night or weekends when production has finished.

The permit to work sets out strict rules about the way the cleaning must be carried out. Only the people named on the permit are allowed to be in the area to be cleaned. Special clothing may have to be worn, including chemical suits with head and face protection, and sometimes breathing equipment. This is because the chemicals being used could be harmful to those carrying out the cleaning.

If this sort of work is carried out before a permit has been issued, other people might come into the area being cleaned before it is safe to do so and suffer breathing difficulties or chemical splashes on their skin causing burns and dermatitis.

The permit will state the start and finish time of the job, and must be returned to the person who issued it. Only when it is signed off will others be allowed into the area which has been cleaned.

Activity 4

Do you need a permit to work when cleaning?

Who would issue the permit?

Carry out cleaning

All product preparation and production areas and equipment need to be cleaned regularly and thoroughly, but not everything needs to be disinfected.

The cleaning schedule will list:

- the chemicals you must use
- the personal protective equipment you must wear
- the equipment to be used
- the way the chemicals must be prepared
- the order in which the cleaning is to be carried out.

Activity 5

What extra personal protective equipment do you use and/or wear when carrying out main cleaning?

Why must you use/wear this extra equipment?

The cleaning schedule is your work instruction and must be followed exactly.

By doing so, the areas and equipment you will be cleaning will be done:

- in the right order
- to the expected standard

If this is not done, there will be the possibility that some items and areas will have been missed, bacteria will not have been removed, and any new product will be contaminated.

Some of the workplace equipment you are going to clean may be dismantled for you. If you have to dismantle equipment yourself, make sure you have been trained and know how to do it safely.

Make sure that any powered equipment is disconnected from the power supply before you start cleaning.

Some items may have to be removed from the work area for cleaning. Check with your supervisor first to make sure what equipment has to be moved from the area.

If you do have to remove anything to a different area, make sure you have all the parts and keep them all together.

Remember to use the correct lifting and handling methods and make sure the area you will be using is ready with the correct chemicals and equipment and room to work safely

Activity 6

What types of equipment do you have to take to another area to clean?

You need to use energy to clean properly!

This could be:

- physical energy, such as scrubbing
- heat energy, such as hot water
- chemical energy, such as detergent

Using very hot water and the correct detergent means you do not need as much physical effort.

Main cleaning means loosening of surface dirt and grease using a detergent. There are several ways to do this:

- using a scrubbing brush and a bucket with hot water and detergent
- using a prepared spray and cloth
- using a piece of equipment with a high-pressure hose attachment

Activity 7

What tools and equipment do you use for main cleaning?

Cleaning in the workplace must be very thorough. You must make sure that not only surfaces are cleaned correctly, but also the front, sides, and any hidden ledges underneath. Grease and product can be missed in these hidden places and they will encourage the growth of bacteria and infestation.

Once cleaning has loosened all the dirt and grease, it must be rinsed away. You will need to use plenty of hot water and make sure all the areas you have cleaned have been rinsed properly. You must also make sure that the water used for rinsing has gone down the correct drain or drain channel.

Disinfecting

Disinfecting will kill any bacteria left after cleaning and rinsing.

Anything that touches the food and/or ingredients being prepared and/or processed must be disinfected. This includes:

- food contact surfaces
- cutting boards
- slicing machines
- utensils
- handles on drawers
- refrigerators

Walls, floors, drains, and equipment legs need to be thoroughly cleaned and degreased, but they will not need to be disinfected unless there is a risk of product contamination.

Ovens and similar devices that use high temperatures to destroy bacteria do not need disinfection.

Final rinse

Once all the cleaning and disinfecting has been carried out, you will be ready for final rinsing. This is to remove all traces of disinfectant, which might contaminate the food or drink that is to be made.

Before rinsing, make sure that the drains and drain channels are clear, and that any covers have been removed.

It is very important that the rinsing water goes down the correct drain as it will be contaminated by the disinfectant and must not go into the main water supply.

Rinsing is usually done using a high-pressure water spray. Care must be taken to remove all traces of disinfectant.

Remember to tell all others working with you when you are ready to rinse. The floor will become very wet and slippery, and there could be slips and falls if care is not taken.

Activity 8

How do you carry out final rinsing?

Drying

You will have taken a lot of time and trouble to clean, disinfect and rinse the work areas and equipment. This can all be undone if drying is not carried out correctly.

Everything that has been cleaned must be allowed to drain and then air-dried on a clean disinfected surface.

Where this is not possible, single-use paper towels or a clean dry cloth should be used.

Complete cleaning

Once the cleaning has been completed, take a moment to look around and make sure that nothing has been missed. You will need to make sure all plant, equipment, and work areas are ready for the next production shift.

Any equipment that has been taken away for cleaning must be put together again and replaced either on the work surface or in the proper storage area.

Remove any waste or waste containers from the area if you have not already done so and put them in the correct place for emptying and cleaning.

Check your cleaning equipment for damage, and clean and dry as you have been instructed.

Put any brushes or mops in their storage area, making sure they are hanging off the floor.

Return any unused chemicals to the chemical store.

Remove any protective clothing and equipment you have been wearing, clean it as instructed, and check it for any damage. Store it in the correct place. Remember to tell the right person if there has been any damage and you need a replacement.

Tell your supervisor/team leader that you have finished cleaning,

Check with your cleaning schedule that everything has been covered, and tell your supervisor/team leader that you have finished in that area. This is so that all the necessary records can be completed.

The law relating to food and food hygiene

The Food Safety Act 1990 is the most important act relating to the sale of food for human consumption.

It is an offence to make food which would injure health, or sell food that would harm your health, be unfit or so contaminated that it would be unreasonable to use it for human consumption.

It is also an offence to sell food that is not of the nature, substance, or quality demanded by the person buying it.

Legal action can also be taken if the food is wrongly labelled.

The Food Safety (General Food Hygiene) Regulations 1995

These regulations control the hygiene standards of food premises other than those covered by a company's own specific regulations, such as dairies and slaughterhouses. There are 11 main points:

1. Proprietors of food businesses must operate hygienically and
 - a) analyse food hazards which may arise in the food operation
 - b) identify at which points in the operation these hazards may occur
 - c) decide which of the points identified are critical to making sure the food is safe (critical points)
 - d) put in place effective control and monitoring procedures at these critical points and check on these safety controls from time to time and whenever food operations change
2. Food premises must be kept clean and maintained in good repair and condition. They must be designed to permit good food hygiene practices, have adequate washbasins and flush lavatories, and facilities for cleaning and disinfecting. Satisfactory standards of lighting and ventilation must be provided
3. Walls, floors, and food-contact surfaces of food rooms must be easy to clean and, where necessary, disinfect

4. Conveyances and/or containers used for transporting foodstuffs must be kept clean and maintained in good repair and condition to protect foodstuffs from contamination
5. Food equipment must be kept clean and in good repair and condition to enable it to be kept clean and, where necessary, disinfected to minimise the risk of food contamination
6. Food waste and refuse must not be allowed to accumulate in food rooms and adequate provision must be made for its storage and removal
7. An adequate supply of potable (drinkable) water must be provided
8. Food handlers must keep themselves clean and wear suitable clean and, where appropriate, protective clothing. If they know or suspect they are carrying a food-borne disease, or have an infected wound or skin condition, they must advise their manager and must not be permitted to work if they are likely to contaminate food with pathogens.
9. Food, including raw materials, must be fit for human consumption and stored and protected to minimise any risk of contamination
10. Food handlers must be supervised and instructed and/or trained in food hygiene matters commensurate with their work activities
11. Offences are punishable, on conviction, to a fine not exceeding the statutory maximum for each offence. In serious cases, a sentence of up to 2 years and imprisonment and unlimited fines may be imposed.

The Food Safety (Temperature Control) Regulations 2006

These regulations require, subject to certain exemptions, that food must be kept in a refrigerator or refrigerating chamber or in a cool ventilated place, or at a temperature above 63°C. Reheated food must be raised to a temperature of at least 82°C. No food shall be kept at temperatures that would result in a risk to health.

Section 3: Sample questions and answers

This section of the support pack links directly to the knowledge requirements of the Unit and provides examples of the types of information assessors are looking for to ensure full coverage of the knowledge requirements.

In this part of the support material you need to ensure that you know and understand the following:

K1: How personal hygiene and behaviour affects food safety in the workplace

How does personal hygiene and behaviour affect food safety in the workplace?

- By contributing to the contamination or cross-contamination of food. This could result in an outbreak of food poisoning

Good practices helping to prevent this happening include the following:

- Follow the wash hands procedure after using the toilet, before entering and on leaving food production areas, and between handling raw and cooked meats
- Refrain from spitting or eating in the workplace
- Refrain from wearing stoned jewellery, chains, and watches, etc.
- Keep nails short and clean, with no nail polish
- Cover any cuts/wounds or breaks in the skin with a blue waterproof plaster (metal detectable if applicable)

K2: The relevant statutory and non-statutory reportable diseases

The relevant statutory and non-statutory reportable diseases include the following:

- symptoms such as diarrhoea, vomiting, nausea, or abdominal pain
- skin infections or boils, septic styes, etc
- recurring ear or gum infections
- food- and water-borne illness, eg dysentery, *Clostridium botulinum*, typhoid or paratyphoid, cholera
- any symptoms following a 'foreign' trip

K3: Why it is important to treat and cover cuts, boils, skin infections and grazes and how to do so

Why is it important to cover cuts, boils, skin infections and grazes?

- To prevent contamination of products, equipment, or surfaces which may result in an outbreak of food poisoning
- To protect cuts from infection (cover cuts with a blue waterproof plaster (metal detectable if required))

K4: How food handling practices affect food safety in the workplace

Good food-handling practices affect food safety in the workplace by preventing:

- food poisoning outbreaks and sometimes death
- food contamination and customer complaints
- pest infestations
- waste food due to spoilage and corresponding loss of profit
- the closure of food premises by local authority action
- fines and costs of legal action taken because hygiene laws broken or because of the sale of unfit or unsatisfactory food

K5: How the methods and frequency of cleaning and maintenance of equipment, surfaces and environment affects food safety in the workplace

Following the cleaning schedule and using the correct chemical dilution rates and methods will prevent contamination and possible food poisoning

Reporting any defects in equipment, surfaces, and working environment will prevent any contamination and possible food poisoning

K6: The main types of pests and infestation; how they can occur; how to prevent infestation; how to recognise them and what to do if you discover infestation in the workplace

The main types of pests and infestation that may be found in the workplace are:

- rodents
- insects
- birds
- cats or stray dogs

Infestation can occur by any of the following:

- allowing waste to build up in the work area
- leaving windows or doors open
- not inspecting deliveries and storage areas on a regular basis for signs of infestation

Infestation can be prevented by the following methods:

- seal all doors and windows (metal plate to base of doors, strong sound framework to doors and windows)
- clear waste materials regularly using designated, lidded storage bins
- an effective pest control policy

The signs of pest infestation are:

- droppings
- fur/feathers
- tracks and trails
- gnawing of packaging or bite marks on product
- traces of nests
- sight of live/dead pests

If you discover infestation in your workplace contact the most senior member of staff present in the business. The most senior member of staff should then contact a fully qualified pest control business

K7: The types of product contamination and cross-contamination; how they can occur; how to prevent or minimise the risk of it occurring; and what you can do if you discover contamination or cross-contamination

The types of product contamination and cross-contamination are:

- bacterial
- chemical
- physical

Product contamination and cross-contamination can occur by any of the following methods:

- bacterial — from people, product and pests
- poor personal and general hygiene practices, improper storage and handling of products, and pest infestation
- chemical — by using the wrong chemicals, wrong dilution rate, not rinsing thoroughly, not storing chemicals correctly
- physical — from people, equipment, tools, premises

You can prevent or minimise the risk of contamination or cross-contamination occurring by the following methods:

- bacterial — high standards of personal and general hygiene practices, proper storage and handling of products, and an effective pest control policy.
- chemical — by using the correct chemicals, correct dilution rate, rinsing thoroughly, storing chemicals correctly — control of substances hazardous to health (COSHH)
- physical — using blue waterproof dressing on wounds and cuts, not wearing stoned jewellery, hair restrained, visually checking products

If you discover contamination or cross-contamination you must do the following:

- report it immediately to the most senior member of staff on the premises
- isolate contaminated product until a decision is made by the senior member of staff
- wash down the equipment and work area the contaminated product may have come into contact with

K8: The types of food poisoning; how food poisoning organisms enter food; the factors that affect the growth of these organisms; how they can be transferred from one food to another; the symptoms of food poisoning; and how to prevent this from happening

Examples of the different types of food poisoning, bacteria and their toxins are:

- bacteria or their toxins, eg:
 - Salmonella
 - Campylobacter
 - Staphylococcus aureus
 - Bacillus cereus
 - Clostridium perfringens
 - E. coli O157
 - bacillary dysentery
 - typhoid or paratyphoid
- viruses, eg hepatitis A
- chemicals, eg insecticides, poisonous plants
- metals, eg lead, copper, mercury

Food poisoning organisms can be allowed to enter food by:

- not using good hygiene practices
- not storing meat and other products under temperature-controlled conditions
- permitting staff with open cuts or skin infections to work without first covering the wound with a coloured waterproof plaster (with a metallic strip if applicable)
- allowing pets or pests access to the premises
- not following your company HACCP system

The factors that affect the growth of food poisoning bacteria are:

- food — preferably protein-based foods
- moisture — any, including the moisture in meat
- warm temperatures — to grow in
- time — in which to grow
- oxygen — some bacteria require it to survive

Bacteria can be transferred from one food to another by:

- not washing hands between handling raw and cooked products
- using soiled equipment and work areas
- not washing vegetables being used in further processed products
- not using the correct colour coded equipment
- not separating raw and cooked meat in storage

The symptoms of food poisoning can include some or all of the following:

- vomiting
- nausea
- diarrhoea
- raised or lowered temperature
- stomach pains

The ways in which you can prevent this from happening include:

- maintaining good personal hygiene standards in line with regulations for food handling
- following hand-washing procedures
- refraining from spitting or eating in the workplace
- refraining from wearing stoned jewellery and watches
- keeping nails short and clean, do not wear nail polish
- covering any cuts/wounds with a coloured waterproof plaster
- wearing appropriate protective clothing as per company requirements, kept clean at all times and changed as necessary/required
- following the company HACCP system

K9: Why food needs to be kept at specified temperatures and how to ensure this

Bacteria will grow rapidly in foods, particularly in high-risk foods, that are left within the temperature danger zone: 5–63°C

The reason foods need to be kept at specified temperatures is to minimise bacterial growth, which is a powerful weapon against the infection of food by food-poisoning bacteria.

The ways in which we can ensure this are:

- minimise the time food is kept out of a chilled environment
- keep product temperatures out of the danger zone
- follow the business stock control policy

K10: The causes of food spoilage, how to recognise it and what to do if you discover food spoilage

The causes of food spoilage are:

- out-of-date food
- out-of-temperature food
- burst packaging
- wrong gases used in packaging
- incorrect food storage

The signs of food spoilage include:

- food becomes slimy in appearance
- food becomes discoloured
- food becomes sticky
- food may become smelly

If you discover food which has signs of food spoilage you must do the following:

- report to the most senior member of staff
- isolate the product until a decision is made
- label the product with a 'Do Not Use' sign
- dispose of the product if instructed to do so by a senior staff member

Section 4: Evidence for this Unit

Performance evidence

In order to be assessed as competent you must demonstrate to your assessor that you can consistently perform to the requirements set out below. Your performance evidence must include at least one observation by your assessor. Your evidence must be work based.

Evidence of performance may employ examples of the following types of assessment:

- observation
- written and oral questioning
- evidence from company systems (eg food safety management system)
- reviewing the outcomes of work
- checking any records of documents completed
- checking accounts of work that you or others have written about you

You must provide performance evidence of:

- keeping the workspace clean in accordance with workplace procedures
- keeping food safe in accordance with workplace procedures
- following the correct procedures for dealing with two types of contamination

Knowledge evidence

Your assessor may gather evidence of knowledge and understanding during observation of your performance in the workplace. Where it cannot be collected by observing performance, other assessment methods will be used, for example written and/or oral questioning.