

scenesafeTM

evidence recovery systems

Forensic DNA Grade Manual

Version 1.0

Date: 17/05/16

Contents:

1. Forensic DNA Grade statement
2. ISO 18385 is coming
3. SceneSafe methodology
4. DNA free certification
5. DNA anti-contamination guidelines
6. Cleanroom clean down procedure
7. Preparing/completing kit assembly
8. Changing area protocol
9. Entering clean room procedure
10. Leaving clean room procedure

SceneSafe DNA Forensic Grade Statement

SceneSafe are providers of Forensic DNA grade products. As such we have a stringent quality process which ensures that every product which is either to collect DNA or in the process of recovering DNA, is fit for purpose.

Accreditation:

As an ISO 9001 & 14001 accredited company we have the quality management system policies in place which are externally audited by an independent body to ensure that our standards are maintained and accurate.

We operate an ISO 14644-1:2001 accredited class 4/5 clean room environment which is maintained using a strict protocol and externally tested and validated by an independent ISO approved company. Certificates for each are provided in annex A.

Term DNA Free:

The term "DNA Free" is widely used in the forensic market and it now a term deemed unacceptable by the UK Forensic Regulator. As such we want to ensure that it a clear definition is provided detailing what is meant by the new terminology "Forensic DNA Grade" and how SceneSafe react to this standard.

PAS 377 is the British standard which focuses on developing a guideline to be adhered to by all forensic suppliers. This standard is a set of guidelines detailing what is acceptable for use in the forensic market for the manufacturer of forensic products. It recommends that every step is taken by the manufacturer to ensure that the product in question is manufactured to the highest standard which is achievable.

Our products where possible are taken through a DNA denaturing process. This process breaks down any background DNA which, may or may not be present in the product after manufacturing is completed. The DNA string is separated through this process which, prevents it from being possible to be read after the analytical process has been completed in the laboratory.

Every Forensic DNA Grade product we produce is batch recorded so we can identify on audit the following data.

- What was produced
- How many were produced
- What date is was produced
- What time is was produced
- Which member of staff produced it
- What the staff member was wearing under full PPE

Each staff member at SceneSafe provides a DNA sample which is stored as a profile on the UK National Supplier Database. This is a measure put in place to ensure that if although very unlikely a DNA sample were to be found through staff interaction then it can be quickly eliminated and maintain the product integrity.

Clean room PPE:

Each member of staff wears full PPE inside the clean room environment and we provide a double door entrance with chamber to prepare into the PPE. This reduces contamination into the clean room facility.

Clean room maintenance:

The clean room undergoes a daily clean after every working day and once a week a deep clean is carried out. This maintains the ISO levels achieved.

External Laboratory Testing:

Once our products have completed the DNA denaturing process a representative batch is sent to an external ISO accredited laboratory for DNA analysis. This measure ensures that the products are free of DNA and it is only at this stage that the batch tested can be confirmed as DNA Free. This representative batch which is cleared is enough to satisfy that the process has been successful on all products which have undergone this process.

Once the batch has been approved DNA free, a certificate is provided as confirmation.

Production:

Once the final product has been produced in the clean room environment the product is sealed ensuring it does not come into contact with any DNA until opened at the crime scene or place of use.

ISO 18385 is coming soon, we're ready...are you?

International Standards in preventative measures to combat Human DNA Contamination in Forensic Science

DNA profiling techniques in use today are becoming increasingly more sensitive allowing forensic service providers to obtain DNA profiles from both visible and non-visible body fluid deposits (i.e. saliva, blood, epithelial cells). This increased sensitivity means that consumables used for the recovery of crime stains for DNA interpretation (casework) need to be to an agreed Forensic DNA Grade. SceneSafe products will offer you this assurance.

The presence of foreign DNA in either crime scene or laboratory analytical environment can have serious consequences on the outcome of the case in question. This may result in a vital piece of criminal evidence being compromised and inadmissible in court, removing the evidence from use.

Every Police Force that conducts DNA analysis for forensic purposes will be reassured to use Forensic DNA Grade consumables in either single use components or kit form for the collection and analysis of DNA material. Using an ISO accredited provider will provide proven certified international guidelines have been met to offer the forensic customer the best quality product available.

Current UK standards - PAS 377:2012

PAS 377 is the British guideline to be adhered to by forensic suppliers. This standard is a set of guidelines detailing what is acceptable for use in the forensic market for the manufacturer of forensic products. It recommends that every step is taken by the manufacturer to ensure that the product in question is manufactured to the highest forensic standard which is achievable.

The move to an International Standard - ISO 18385

Minimizing the risk of human DNA contamination in products used to collect, store and analyse biological material for forensic purposes

Both the UK forensic regulator (alongside PAS 377 guidelines) as well as the European Network of Forensic Science Institutes (ENFSI), the Scientific Working Group on DNA Analysis Methods (SWGDM) and the Biology Specialist Advisory Group (BSAG) have all championed the need for an International Standard in producing forensic products to mitigate the risk of human DNA contamination in products used for the forensic market.

This ISO 18385 is now available and participating ISO member countries and soon to be made available for all forensic manufacturers to be certified against. The ISO 18385 Standard is expected to provide manufacturing requirements for forensic grade products, and specify acceptable methods and pass/fail criteria for DNA contamination testing.

Where SceneSafe are now in terms of quality Forensic Grade products...

Developed by the former UK Forensic Science, SceneSafe, have been producing DNA evidence collection products to a high quality forensic grade since its inception in 1997. As a result of the guidance provided by the FSS, the kits SceneSafe produced were designed to be of a robust quality manufactured product in order to maintain any risk of human DNA background contamination.

We treat consumables used for DNA casework (that could potentially be analysed to low template DNA standards) with a single cycle of Ethylene Oxide (EtO) in order to reduce or eliminate DNA contamination. Ethylene oxide is a toxic gas that splits up DNA helices into small fragments that are then too small to deliver a DNA profile that could be loaded onto the National DNA Database (NDNAD).

To ensure that the EtO process has worked, 'Spiked Swabs', that is swabs inoculated with a known quantity of saliva from a known donor, are placed within the load of consumables and throughout the chamber. The consumables are subjected to a cycle of EtO treatment at defined temperature and pressure parameters. After the treatment the 'spiked swabs' are removed from the chamber and sent for DNA analysis with our ISO 17025 accredited Forensic Analytical Service Provider. If the spiked swabs show no level of detectable DNA, then the components are passed as suitable for use. If the spiked swabs show that any DNA is present which exceeds the agreed failure criteria, then the batch of goods would be subjected to further treatment and subsequent re-testing or rejection if reprocessing was not possible. No goods are cleared to enter the supply chain until they have passed QC testing from our chosen Forensic Service Provider.

SceneSafe ISO 18385 Readiness

We are involved, along with other manufacturers and the UK Forensic Regulator, in helping forensic community leaders develop the ISO 18385 requirements. When ISO 18385 is published and available for certification as a Forensic DNA grade manufacturer we will take any additional steps required to manufacture in total transparency and accordance with the standard.

Summary

SceneSafe are already producing a high quality Forensic Grade products in accordance to PAS 377 and we will ensure that we adhere to all requirement standards set in place by ISO 18385 to continue to support the development of Forensic Science and the forensic community.

Our ability to cater for a global market allows us to continue that standard and act as an advocate for minimising the risk of human DNA found in Forensic products.

Methodology used to certify products to Forensic DNA Grade

DNA profiling techniques in use today are becoming increasingly more sensitive allowing forensic service providers to obtain DNA profiles from both visible and non-visible body fluid deposits (i.e. saliva, blood, epithelial cells). This increased sensitivity means that consumables used for the recovery of crime stains for DNA interpretation (casework) need to be to an agreed Forensic DNA Grade. SceneSafe products can offer you this assurance.

We treat consumables used for DNA casework (that could potentially be analysed to low template DNA standards) with a single cycle of Ethylene Oxide (EtO) in order to reduce or eliminate DNA contamination. Ethylene oxide is a toxic gas that splits up DNA helices into small fragments that are then too small to deliver a DNA profile that could be loaded onto the National DNA Database (NDNAD). Originally, a dual cycle EtO process was introduced by the Home Office Forensic Science Service in 2006, and this was validated to denature DNA using highly sensitive low template DNA techniques. Gassing techniques and processes have improved since the original format and we are now able to offer the same levels of denaturing but with a single cycle.

The consumables that go into the EtO chamber for DNA denaturing treatment will have been manufactured in an ISO 14644 Class 4 or Class 5 certified clean room environment. To ensure that the EtO process has worked, 'Spiked Swabs', that is swabs inoculated with a known quantity of saliva from a known donor, are placed within the load of consumables and throughout the chamber. The consumables are subjected to a cycle of EtO treatment at defined temperature and pressure parameters. After the treatment the 'spiked swabs' are removed from the chamber and sent for DNA analysis with our ISO 17025 accredited Forensic Analytical Service Provider. If the spiked swabs show no level of detectable DNA*, then the components are passed as suitable for use. If the spiked swabs show that any DNA is present which exceeds the agreed failure criteria, then the batch of goods would be subjected to further treatment and subsequent re-testing or rejection if reprocessing was not possible. No goods are cleared to enter the supply chain until they have passed QC testing from our chosen Forensic Service Provider.

***The limit of detection of the low template ES117 cycle testing protocol used by our forensic service provider is 25 relative fluorescent units (rfu) peak height and the protocol is sufficiently sensitive to detect DNA to sub 50pg template DNA.**

Stock items that are used for reference DNA collection are batch tested using the same criteria for casework samples. However, some items may not have been ETO treated due to the nature of the component, for example, sterile water. However they are still QC batch tested to ensure that they are Forensic DNA Grade. The parameters vary from product to product but follow the comprehensive guidelines provided within PAS 377:2012 "The Specification for Consumables used in the Collection, Preservation and Processing of Material for Forensic Analysis". SceneSafe are also expected to be an early adopter of the ISO 18385 standard as and when this becomes available.

All SceneSafe staff DNA profiles are held on a Supplier Elimination Database so that they can be anonymously identified should any post treatment contamination occur.

In addition to post production Ethylene Oxide treatments, all of our DNA retrieval products are manufactured in a clean room environment which is cleaned on a daily basis with DNA destroying chemicals. Environmental monitoring samples are taken from these rooms on a regular basis and tested for background DNA contamination by external service providers.

Kit assembly staff wear the appropriate **Personal Protective Clothing** (PPE) to minimise the risk of contamination to the product, i.e., gloves, facemask, gown, mob caps, overshoes. Their competence to work in this environment is recorded along with regular training in the correct use of PPE.

Forensic DNA Grade products and consumables can be identified by their product code. Lot and / or Batch Numbers are recorded before being processed, along with details of the individuals involved in the manufacture of the kit, the date the kit was made and the clean room in which the kit was produced.

Control samples of items used in the direct collection of DNA are also held and retained by us for future analysis should this become necessary.

DNA-free Certification

Method used for removal of DNA Contamination

DNA profiling techniques in use today are becoming increasingly more sensitive allowing forensic suppliers to obtain DNA profiles from both visible and non-visible body fluid deposits (i.e. saliva, blood, epithelial cells). This increased sensitivity means that consumables used for the recovery of crime stains for DNA interpretation (casework) need to be free from DNA contamination. Scenesafe products can offer you this assurance.

We treat consumables used for DNA casework (that could potentially be analysed to low template DNA standards) with a dual cycle of Ethylene Oxide (EO) in order to reduce or eliminate DNA contamination. Ethylene oxide is a toxic gas that splits up DNA helixes into small fragments that are then too small to deliver a DNA profile that could be loaded onto the National DNA Database. The dual cycle EO process was introduced by the Forensic Science Service and has been validated to destroy DNA using the highly sensitive low template DNA technique and has proved 100% successful since circa 2006. This is outlined in paper by Archer et al 2010. (*Validation of a dual cycle ethylene oxide treatment technique to remove DNA from consumables used in forensics: Forensics International: Genetics. 2010, 4, 239-243.*)

The consumables that go into the EO chamber for DNA destroying treatment will have been manufactured in a clean environment. To ensure that the EO process has worked, 'Spiked Swabs', that is swabs inoculated with 10µl of saliva (estimated to contain 0.5µg of DNA, which is well above what could occur during the normal manufacture of consumables), are placed with the load of consumables, throughout the chamber. The consumables are subjected to a dual cycle of EO treatments at defined temperature and pressure parameters. After the second treatment the 'spike swabs' are removed from the chamber and sent for low template DNA analysis with our Forensic Service Provider. If the spike swabs show no level of detectable DNA*, the components are passed for use. If the spiked swabs show that any DNA is present, the batch of goods would be subject to further treatment and subsequent testing or rejection. No goods are cleared to enter the supply chain until they have passed QC testing from our Forensic Service Provider.

***The limit of detection of the low template SGMplus 28 cycle testing protocol used by our forensic service provider is 25 relative fluorescent units (rfu) peak height and the protocol is sufficiently sensitive to detect DNA to sub 50pg template DNA.**

Stock items that are used for reference DNA collection are batch tested using the same criteria for casework samples. However, some items may not have been EO treated due to the nature of the component, for example, sterile water, however they are still QC batch tested to ensure that they are DNA-free. The parameters vary from product to product but follow minimum guidelines for PAS 377:2012.

All of our DNA critical items are listed on the reverse of this certificate. This shows the reference log example on each Kit/product, that refers back to certification of the DNA free components/kits and the production date. All Scenesafe staff DNA profiles are held on an Elimination Database, should any post treatment contamination occur.

In addition to Ethylene Oxide treatment, all our DNA products are manufactured in a DNA-free clean room environment which is cleaned on a daily basis with a DNA destroying chemical. Environmental

monitoring samples are taken from the room on a regular basis and tested for background DNA contamination.

Kit assembly staff wear the appropriate **Personal Protective Clothing (PPE)** to minimise the risk of contamination to the product, i.e., gloves, facemask, gown, mob caps, overshoes.

The DNA profiles of all our staff, manufacturers' staff and visitors are held on an elimination database. This enables the Scenesafe to check all resultant profiles of anyone who may have come into contact with our process prior to reporting a result.

DNA-free products and consumables can be identified by their Product code and Lot or Batch Number. Examples are listed in the table below:-

Kit Code	Description	Identifier	Example
K430	Sterile/DNA-Free Water 10ml	Batch Number	11065013
K505	PACE DNA Sampling Kit	Barcode	31000000
K515	Elimination DNA Sampling Kit	Barcode	53000000
K530	Police Elimination DNA Sampling Kit	Barcode	71000000
K542	Enhanced DNA Recovery Kit	Lot Number	22012013
K543	Scenesafe Fast Tapes Kit	Lot number	22012013
K544	Scenesafe FAST Tapes Pack	Lot Number	22012013
K545	Scenesafe FAST Tapes Box	Lot Number	644328
K546	Flocked Swab DNA Recovery Kit	Lot Number	22012013
K547	Flocked Swabs	Batch Number Lot Number	086L14 Q4GNOO
K555	Contact DNA Recovery Kit	Lot Number	22012013
K650	Standard Tip Swabs	Lot Number	LOT40458
K660	Fine Tip Swabs	Lot Number	LOT40458

DNA Anti-Contamination Guidelines

OBJECTIVE

This procedure details the policies and procedures followed by Scenesafe to minimise the possibilities of DNA contamination from examination of exhibits until all examinations have been completed.

SCOPE

The DNA anti-contamination procedures apply to all laboratories or designated areas or temporary work areas where product assembly which may be forwarded for DNA analysis is carried out.

REFERENCES

SSU-SP-026 Anti-contamination Guidelines

SSU-WI-037 Scenesafe Product Assembly Environmental conditions

SSU-LP-012 Clean Room Environmental Regulations

RESPONSIBILITIES

Line managers must ensure that all staff are aware of the contents of this document relevant to their area of work.

Line managers are responsible for ensuring that adequate resources/facilities are provided to enable the requirements of this procedure to be fulfilled.

Each member of staff is responsible for following the guidelines and completing the cleaning rota relevant to their area of work

DEFINITIONS

DNA clean: for the purposes of this procedure, the definition of 'DNA clean' is one in which the working practices laid out in section 7 are followed.

DNA clean laboratory: an entire room which is maintained to and in which work is carried out to the required DNA clean working practices.

DNA clean area: a defined area within a room which is maintained to and in which work is carried out to the required DNA clean working practices.

Monitored non-DNA clean area: an area in which strict anti-contamination and decontamination regimes are not required for a number of reasons but predominantly because it is considered there is a sufficiently low risk associated with the tasks undertaken in the area.

PROCEDURAL NOTES

The anti-contamination procedures detailed in this document are in addition to those specified in the Anti-contamination Guidelines SSU-SP-026.

The procedures to follow in the event of DNA contamination being identified are laid out in the Anti-contamination Guidelines SSU-SP-026

There are three potential sources of contamination:

- (i) kit or component contamination with human genomic DNA from the assembly environment
- (ii) kit or component contamination from the manufacturer/source;
- (iii) DNA from staff involved in the manufacture of consumable items.

These potential sources of contamination are of particular concern during sample recovery, preparation, DNA extraction and amplification set up.

Since DNA transfer can occur via direct or indirect contact, particular attention must be paid to potential high contamination risk surfaces, for example:

Packaging. Care must be taken that the outer surfaces of packages do not come into contact with the items therein or with the surface on which the item is being assembled.

Environmental areas such as telephones, door handles, chairs and floors

The operator - staff should avoid touching the sides of their face. If it is necessary to remove prescription glasses during examination appropriate precautions should be taken, eg moving away from the work area and changing gloves.

In the event of contact with any of the above gloves must be changed

Room Requirements

- Source of air flow must be traced to ensure the air is not drawn direct from DNA dirty areas or where such areas vent
- Must be well separated from amplified DNA product work
- Ceiling tiles must not be fibrous
- Ceiling and walls must be washable
- A lobby area should, if possible, lead into the DNA clean room. The gowning procedure should take place in the lobby area or the designated area close to the entrance /exit.

PROCEDURE

Control over the movement of personnel

DNA clean rooms and DNA clean areas must be clearly labelled 'Alert! DNA Clean Room' and 'Alert! DNA Clean Area' respectively, or similar clear wording.

To reduce the migration and introduction of DNA contaminants, avoid the use of a DNA cleanroom as a through corridor.

DNA clean areas (especially where only a bench or part of a bench is so designated) should be positioned in a room away from gowning up areas and to minimise the number of people walking past to access non-DNA clean areas or to leave the room.

Keep the number of people entering DNA clean rooms or DNA clean areas to a minimum.

All people entering DNA clean rooms and DNA clean areas must put on FULL barrier clothing

Where the DNA clean area is only a specified bench or part of bench, people intending to work at the DNA clean area or speak to someone working at the DNA clean area must put on FULL barrier clothing adequate for their intended task.

Environmental Monitoring

Environmental monitoring must be carried out at the agreed frequency.

Barrier Clothing when working in DNA clean rooms or areas

Laboratory coats

Dedicated microbiology-type (Howie type) cloth laboratory coats or dedicated disposable laboratory coats of either the microbiology-type or surgical gown type must be worn and properly fastened.

Dedicated coats must not be worn outside the DNA clean room or DNA clean area to which they are assigned.

Dedicated coats for visitors must be provided

Gloves

Recommended disposable gloves for DNA use are Nitrile powder free, ambidextrous such as Kimberley Clark Safeskin Purple Nitrile powder free

Cotton gloves can be worn under the disposable gloves when required.

1. Disposable gloves must be worn at all times in a DNA clean room or area.
2. The wrist of the glove should cover the wrist of the laboratory coat. If this is not possible, disposable cuffs must be used to cover the gap.
3. Gloves must be changed whenever they have come into contact with a potentially contaminated surface (e.g. exhibit package, face, door handle, phone, chair or retrieval of items from the floor).
4. Staff should use their judgement to decide whether gloves need to be changed during an assembly session.
5. Gloves must be removed when leaving the DNA clean room or area.

Face masks

Face masks must be worn during assembly.

These must be worn properly tied or fitted, and adjusted to cover nose and mouth.

Pinch-nose face masks should be available for staff who wear glasses.

Touching the mask with gloved hands must be avoided, if it is necessary to adjust the mask then gloves must be changed.

Hair cover

Mob caps, or similar hair cover, must be worn entirely covering the hair upon entering the DNA clean lab or area.

Eye Protection

Where necessary eye protection must be worn in the form of goggles, facemask visor or face shield

Gowning Procedure

A lobby area should, if possible, lead into the DNA clean room. The gowning/disrobing procedure should take place in the lobby area or the designated area close to the entrance /exit.

- Immediately the laboratory/area is entered, put on mob cap and ensure all hair is secure within the cap.
- Put on mask.
- **NOTE** : do not talk at all until the mask is securely fitted
- In LCN type analytical areas put on clogs or overshoes
- Put on goggles where necessary
- Put on gloves
- Put on disposable/laundered cotton gown-type (Howie) laboratory coat.
- Change gloves where necessary, e.g. when a lab coat has been worn previously.
- When leaving the laboratory, take off gown and gloves and wash hands
NOTE: if taking samples/tubes out of the laboratory, clean gloves should be worn.
- Remove goggles, mask and mob cap (preferably outside room/area).

Cleanroom clean down Protocol

Daily procedure

1. Clean all work surface areas between productions of modules using Microsol 3 solution (1 part Microsol to 9 parts water (i.e. 2 pumps Microsol with 1 litre water) and a lint free wipe.
2. Turn the tack mats around 180 degrees that are in and outside the cleanroom (replace the tack mat on the Friday)
- 3 Sweep floor in all cleanrooms and remove redundant packaging.

Weekly Deep Clean Procedure

1. Use Microsol 3 solution (1 part Microsol to 9 parts water (i.e. 2 pumps Microsol with 1 litre water) to clean all surfaces, walls, doors, and ceilings using a lint free wipe.
2. Clean windows using a lint free wipe and window cleaner spray.
3. Also use Microsol 3 in diluted solution to clean computer, keyboard, mouse, desk, phones and door handles.
4. Vacuum the white room floor (DO NOT vacuum inside cleanroom 1 and 2)
5. Mop the floor with clean water after vacuuming
6. Vacuum and clean the changing area
7. Change the tack mats that are in and outside the cleanroom.

When using Microsol 3 solution, wear protective goggles at all times.

THINK DNA

Procedures for preparing and completion of kits

1 When a new order of ingredients arrive into the cleanroom , for a start of a new kit, a supervisor or a Team leader must print out a ingredient sheet and labels . The batch number and works order number must be printed on the label. This must all match up to the works order. On the front of the works order a note must be made stating which room the kit is being produced in (CR1, CR2, CR3).

2 The ingredient sheet must be checked and compared to the works order by a supervisor or team leader before given out to a cleanroom assistant.

3 Cleanroom assistant must clean all work surfaces and assembled buckets. A dry cloth must be used with DNA solution (microsol 3 solution), goggles must be worn whilst using DNA solution. On the back of the works order, you must write: work surface wiped and with a signature of the assistant preparing the kit.

4 The works order (details of the kit) is then written up on the white board as follows:

- (a) date
- (b) kit module number, name of police force, and amount of kits
- (c) Time kit started (on the board & on the works order)

5 Cleanroom assistant must also check the ingredient sheet against the works order.

6 whilst preparing the kit, the ingredient sheet must be followed at all times.

7 The first kit must be laid out, with the outer bag with a detailed label on. This must be checked by a supervisor or team leader.

8 The supervisor or team leader must check the kit, main bag with label, using the ingredient sheet and works order. The following must be checked:

- (a) Check batch numbers
- (b) Dates

(c) Assistant written everything correctly

Write first check including a signature.

9 The 1st, 50th and the last kit must be laid out, ready to be checked by a supervisor or team leader.

10 Cleanroom assistant must write the following on the back of the works order, when finishing the last kit:

(a) Completed by:

(b) Date

(c) Signature

11 when the kit has been completed, cleanroom assistant must write the time and date, this is written on the works order and on the white board.

The supervisor or team leader will then know the kit has been completed and ready to send out to the warehouse.

12. Details of the kit are then rubbed off the white board, when approaching to leave the cleanroom.

THINK DNA

CHANGING AREA PROTOCOL

1 . All doors must be closed AT ALL TIMES.

2. Locker doors must be kept closed and locked.

3. When taking out the gloves do not touch the box.

Always double glove.

4. masks must be kept in the box, the ends of the box should be tucked in. put box back in the sealed plastic bag.

5. Cleanroom shoes must be kept on the shoe rack when not worn. Keep plastic sheeting over the shoes.

6 the changing area must be kept clean and tidy at all times.

7. The Changing area must have a deep clean with a cleanroom clean down, once a week.

THINK DNA

CLOTHING PROCEDURE FOR ENTERING THE CLEANROOM

1. After entering the changing area, check all doors are closed.
2. Sign in the cleanroom log book.
3. Put on the following cleanroom clothing:

Over suit –

Mask - check mask is covering the mouth/nose.

Hairnet- check for hair is not showing.

Gloves –Double glove at all times. Put glove box back in the sealed plastic bag.

Snood - if men have a beard, a snood must be worn.

THINK DNA

CLOTHING PROCEDURE FOR LEAVING THE CLEANROOM

Remove the following clean room clothing.

1. Gloves
2. Hairnet
3. Mask
4. Over suit (place back in plastic bag and put away in provide cupboard).
5. over shoes
6. Dispose hairnet, gloves, mask and over shoes in the bin (changing area)
7. Sign out the clean room log book.
8. Check all doors are closed.

THINK DNA