



# Health and Safety at Laboratoire de Physique Corpusculaire

« Useful information for new agents »

## RESOURCE PERSONS

On your first day in a lab, there are specific people in charge of helping you, guiding you and giving you first information concerning the safety in the lab :

- AP : “assistant de prévention”  
(person in charge of health and safety)
- SST : “sauveteur secouriste du travail” (work first-aid person)
- PCR: “personne compétente en radioprotection”  
(person in charge of radioprotection)



Moreover, in any public research institution, university or local administration, you will also find:

- SSE: “Santé-Sécurité-Environnement” (Health, Safety Environment department)
- The doctor in charge of medical risk prevention
- The members of the “Comité d’Hygiène, de Sécurité et des Conditions de Travail (CHSCT)”  
(Health and Safety Council)



They do not work in the laboratory.

## AP

He has been trained in safety and is your first contact for any practical and/or local aspects about safety in the laboratory, except radioprotection for which the PCR will be in charge.

He is in charge of :

- advising the laboratory director
- training and informing the staff
- making sure that safety rules are respected
- welcoming newcomers
- organizing waste sorting and removal

He is in contact with the Health, Safety Environment department (SSE).

**GUESNON Olivier – bureau: B14 – poste : 2418**

**LEBOURGEOIS Frédéric – bureau: Atelier D1 – poste : 2449**



## SST

In case of an accident, he is the person who has been trained to react appropriately. On site, he will organize first aid. Anybody can help him, **on the sole condition of obeying his orders.**

Even before the arrival of an emergency team, the basic actions performed by the SST may save a life:

- analyze the circumstances
- avoid aggravation of the accident
- alert
- perform first aid if necessary

**Drouet Sébastien – bureau : E15 – poste 2981**

**MAUGER François – bureau : D19 – poste 2512**

**LEBOURGEOIS Frédéric - atelier D1 - poste 2449**

**LEHAUST Gregory- bureau : E7 - poste 2989**

**LETERRIER Laurent – bureau:E31 – poste 2995**

**LEMIERE Yves – bureau : D18 – poste 2964**

**LABORIE Philippe – bureau E30 – poste 2978**

**GUILLON Benoit – bureau E7 – poste 2547**

**OLIVEIRA Emeline – bureau E11 – poste 2551**

**PESTEL Valentin – bureau E2 – poste 2983**



## PCR

He has been trained to make sure that the regulations and radioprotection principles are respected. He must :

- define the areas with restricted access (“zones surveillées”), and the associated instructions
- evaluate risks at any work station which uses radioisotopes
- control possible contamination at these stations
- manage waste
- step in when any irregular situation occurs
- inform staff and train them in radioisotope handling
- fill in registers to keep track of radioisotope movements



**Jean-Claude ANGELIQUE – office E5 – extension 2511**

**Jean-Louis GABRIEL – office B7– extension 2432**

## Accident prevention

- Read the safety instructions and comply with them
- Know the emergency phone numbers
- Locate the cut-off devices (gas, power...) and emergency equipment
- Make sure corridors, stairs, fire doors and above all the exits are clear
- Wear a lab coat and get other necessary EPI (“équipement de protection individuelle” - personal protection equipment), if necessary
- Close the door and the windows when you leave your workplace
- In case of an accident or incident, call for the AP, PCR (if radioactivity is involved) or professional master, then follow local emergency instructions.

**Concealing an incident or accident is a fault that may have significant consequences for your colleagues**



## Serious accident with human injury

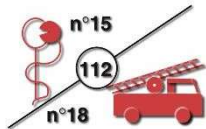


- **Assess** the situation for the safety of yourself and others and **Protect** casualty and group from the environment

- Immediately contact the laboratory **SST (first-aid at work)** and follow his instructions



- Call the emergency services **SAMU, dial 15 or 112**, or pick up the green phone located in the middle of the main laboratory corridor (you don't need to dial), giving the essential information :



- the exact location of the accident
- the status of the victim(s)
- the circumstances of the accident.



### **DON'T HANG UP FIRST !**

- A defibrilator is available at the entrance of the school ENSICAEN bât. A.



## Serious

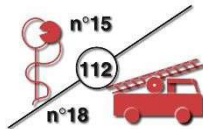


• Assess the situation and protect

• Immediate action and follow up



• Call the emergency services up the general laboratory information



• the exact location  
• the status of the situation  
• the circumstances



• A defibrillator is available at the entrance of the school ENSICAEN bât. A.

PHONE NUMBER 

KIND OF PROBLEM  

POSSIBLE RISKS  

LOCALISATION 

NUMBER  OU 

SERIOUSNESS 

FIRST-AID INTERVENTIONS 

**DON'T HANG UP FIRST !**

 **WAIT THE INSTRUCTIONS BEFORE HANG UP**



## In case of fire



- Act fast but stay calm
- Sound the alarm
- Call or have someone call the fire department, 18 or 112, giving the essential information :

- the exact location of the fire (building, floor, ...)
- the seriousness of the situation

And **DO NOT HANG UP FIRST**

- In case of a starting fire, use the appropriate emergency equipment of the laboratory
- If the fire is out of control, cut off power and gas, close doors and windows, evacuate the laboratory calmly, using the previously defined or usable itineraries
- If it is impossible to evacuate, keep close to the windows (possibly accessible from the fire brigade's ladder) and show that you are there. If there is too much smoke or the temperature is very high, kneel : the air is cooler near the ground. **Do not forget that smoke can be very toxic.**
- **Do not go back**

## In case of fire alarm in your building



- Head for the nearest emergency exit by following the instructions of the evacuation guide and the signpostings

- **Do not go back**

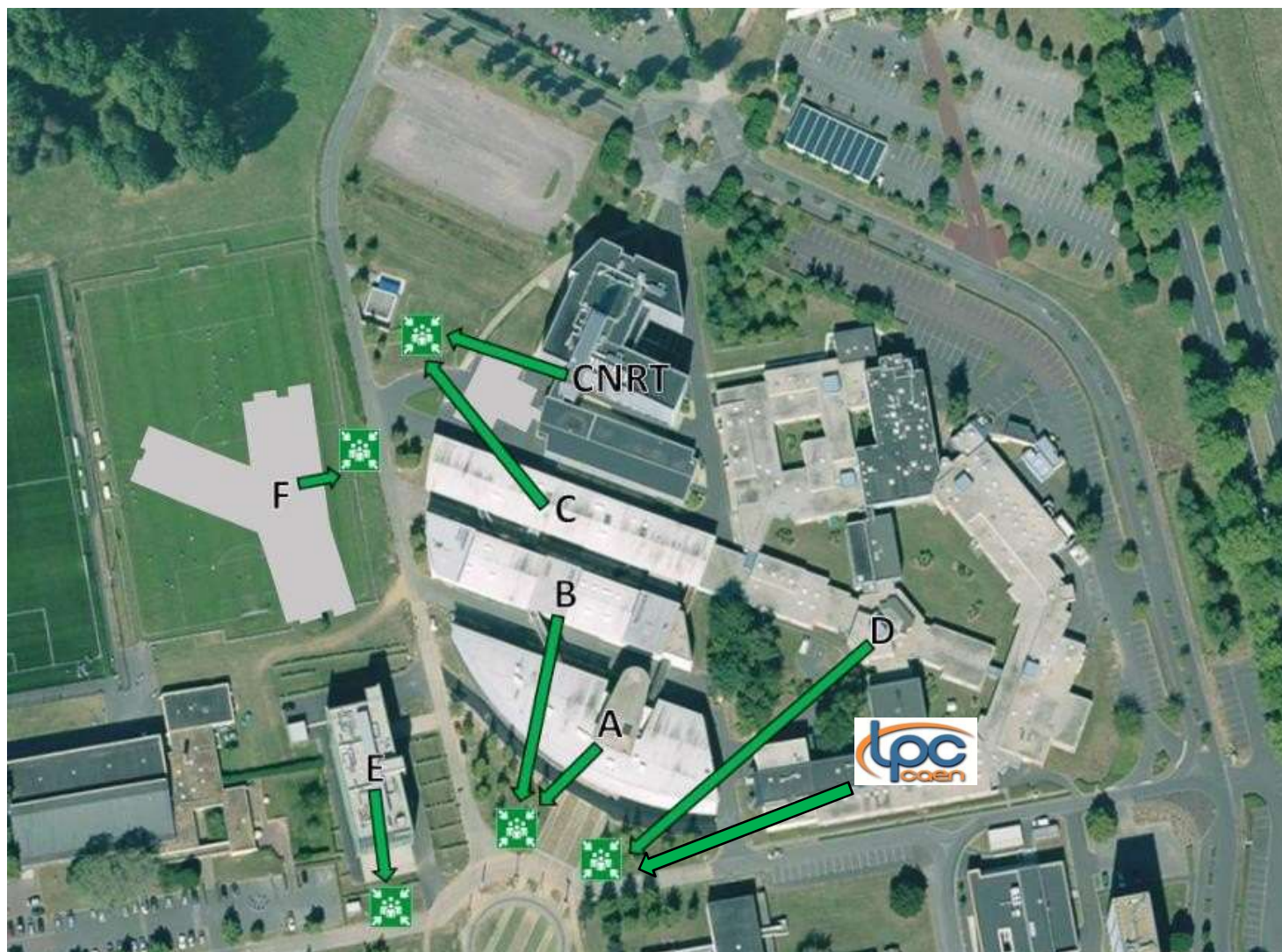
- If there is too much smoke or the temperature is very high, kneel

- If the exit door is closed and you don't have your security card, push the emergency unlocking box (see the picture)

- When you are outside, get to the **assembling point** which is near the ENSICAEN main building, close to the LPC spiral staircase

- **Go back inside the building, only on the order of the person in charge of the evacuation**

## Assembling points ENSICAEN



## In case of terrorist attack

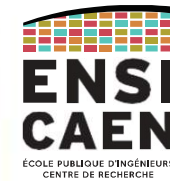
### ① Get away

#### 2 conditions

- Have identified the exact location of the danger.
- Estimate the possibility to escape safely.

#### **IMPORTANT**

- Evacuate quietly the area.
- Leave behind all your belongings.
- Exiting the building at the nearest and less exposed exit.
- Use a well-known route.
- Observe a totally silent :
  - cellphones in silent mode ;
  - Vibrate mode disable.
- Do not expose yourself.
- If possible, help other people to escape.
- Warn/alert the people around you.
- Deter persons from entering the danger zone



### ② Hide

#### Where ?

- In appropriate rooms (classrooms, offices ...), stay confined and barricade the door.

#### **IMPORTANT**

- Barricade the access with the furniture.
- Turn off the lights.
- Hide and stay away from :
  - walls ;
  - doors ;
  - windows.
- Lie down on the floor behind heavy obstacles.
- Mute the sound of the cellphones :
  - silent mode enable ;
  - vibrate mode disable.
- Stay close to people displaying "stress" behavior

## In case of terrorist attack

③ Warn and obey to the law enforcement officers

**Call the security forces 17 or 112**

- Give the essential informations (Where ? What ? Who ?) ;
- Keep them informed ;
- When the security forces arrive, do not run and do not make any sudden movements;
- Keep your hands open and in the air.



### RÉAGIR EN CAS D'ATTAQUE TERRORISTE

AVANT L'ARRIVÉE DES FORCES DE L'ORDRE, CES COMPORTEMENTS PEUVENT VOUS SAUVER

**1/ S'ÉCHAPPER** *si c'est impossible* **2/ SE CACHER**

**3/ ALERTER ET OBEIR AUX FORCES DE L'ORDRE**

**VIGILANCE**

- Témoin d'une situation ou d'un comportement suspect, vous devez contacter les forces de l'ordre (17 ou 112)
- Quand vous entrez dans un lieu, repérez les sorties de secours
- Ne diffusez aucune information sur l'intervention des forces de l'ordre
- Ne diffusez pas de rumeurs ou d'informations non vérifiées sur internet et les réseaux sociaux
- Sur les réseaux sociaux, suivez les comptes @Place\_Beaudeau et @gouvernementfr

Liberté • Égalité • Fraternité  
RÉPUBLIQUE FRANÇAISE

Pour en savoir plus : [www.gouvernement.fr/reagir-attaque-terroriste](http://www.gouvernement.fr/reagir-attaque-terroriste)

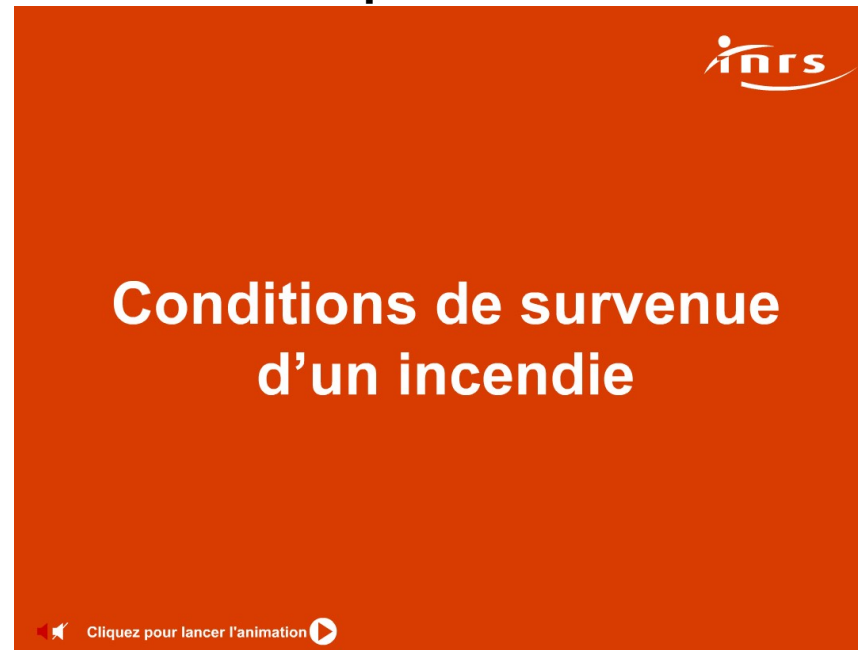
## Fire risk



### **Risk identification :**

It is a process of oxidation between two elements: a fuel (that burns) and an oxidizing substance (that keeps the fuel burning). Combustion is often symbolised by the fire triangle. All three elements of the triangle are necessary to start a fire: hence, **suppressing one element will put out the fire.**

**Click on the red square to see the animation**



## Fire risk



### **Main prevention measures :**

- Locate the cut-off devices (gas, power...) and emergency equipment
- Make sure corridors, stairs and above all the exits are clear
- Store in adapted premises and appropriate conditions all flammable products and high calorific potential materials
- Do not use too many multiple plugs
- Read the safety instructions and comply with them




**Click on the red square to see the animation**



## Fire risk



### Fire-fighting equipment :

Class	Fire type	Extinguishers
	<p>« <b>Dry</b> » fires (solid combustibles) wood, paper, fabrics, electrical fire (<b>voltage &lt; 1000V</b>)</p>	<p>Pulverized water(A) Pulverized water with additive (AB) Multipurpose dry powder ABC</p>
	<p>« <b>Grease</b> » fires (liquids and melting solids) hydrocarbure, alcool, essence, peinture, ...</p>	<p>CO<sup>2</sup> (carbon dioxide) Pulverized water with additive (AB) Dry powders BC et ABC</p>
	<p>Gas fires  methane, butane, propane...</p>	<p>Dry powder BC  Multipurpose dry powder ABC</p>

**In the case of fires linked to electricity, it is better to use CO<sup>2</sup> extinguishers**



## Electrical risk



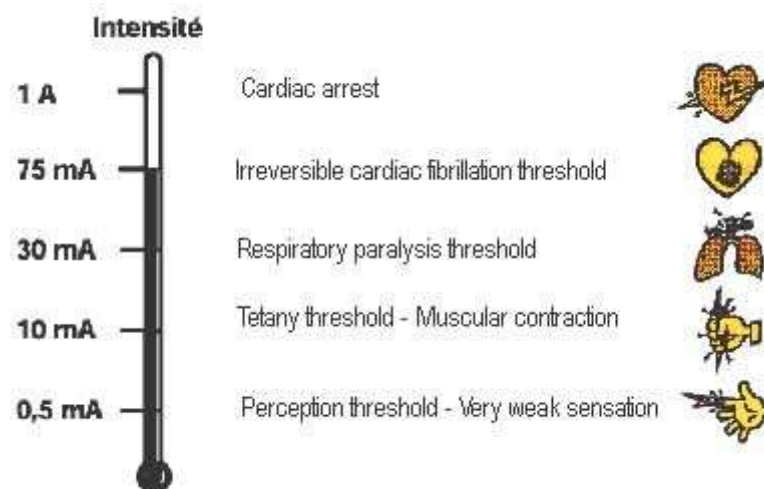
### Risk identification :

The risk is that electric current passes through the body of the person to a terminal of the generator or to the ground. The consequence may be electrification with possible burns, or electrocution (leading to death).

This will take place:

- when someone touches both wires of a circuit, either directly or via conductors
- in certain conditions, when someone touches one of the wires of the circuit and the ground or when someone touches an incorrectly insulated equipment and the ground.

The consequences depend on the intensity of the current going through the body, and thus on the voltage and the body resistance since:  
 $I$  (intensity in amperes) =  $U$  (voltage in volts) /  $R$  (resistance in ohms)



## Electrical risk



### Main prevention measures :

- The design of the installations (a differential breaker on the incoming cable of each room, a ground connection so as to avoid all direct contact with the current, live naked wires should be set apart, separated by obstacles (e.g., locked electrical cabinet), electrical circuits should be insulated (protective sheaths for cables) emergency stop buttons which are well indicated and accessible)
- Design of material to avoid any indirect contact (the use of extra-low voltages (ELV) of 25 or 12 V under damp or wet conditions insulation of frames)
- Individual prevention measures :
  - Never pull on the cable to unplug equipment, always pull on the plug itself
  - Do not modify any electrical material
  - Do not touch an outlet with wet hands
  - Warn the technical department of any anomalies
  - Never connect several multiple outlets in series to a same outlet



**In case of an accident, first, cut the current without putting yourself in danger**

## Ionizing radiations



### Risk identification :

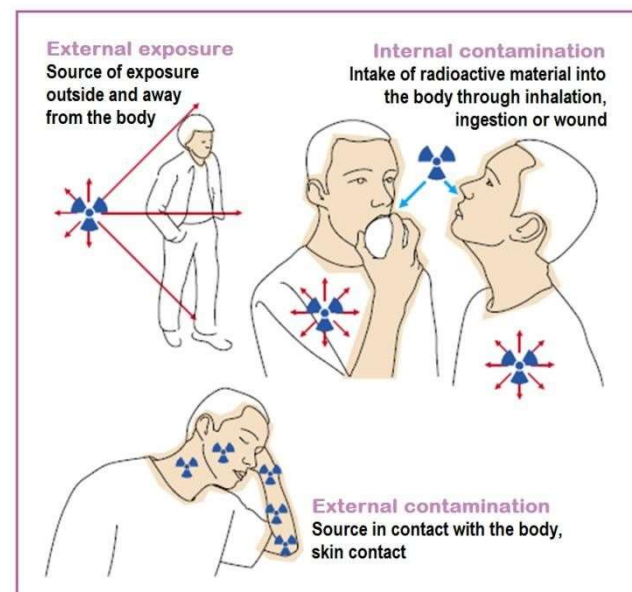
Radioactive decay is the process by which an atomic nucleus of an unstable atom loses energy by emitting ionizing particles ( $\alpha, \beta$ ) and/or radiations ( $\gamma, X$ ).

Alpha ( $\alpha$ ) radiation is highly ionizing but not very penetrating. It is stopped by a sheet of paper.

Beta ( $\beta$ ) radiation is penetrating but not very ionizing. It is halted by an aluminium plate.

Gamma ( $\gamma$ ) and X radiations, consisting of energetic photons, are highly penetrating and are eventually absorbed as they penetrate a dense material as a thick quantity of lead or concrete.

**The use of sealed sources and working with the X-ray generator represent the most significant sources of radioactive exposure at LPC. So the risk is here a direct external irradiation.**



## Ionizing radiations



### Main prevention measures : radiation protection

When working with a X-ray generator or with sealed sources, radiation doses should all be kept as low as reasonably achievable. There are three factors that control the amount, or dose, of radiation received from a source. Radiation exposure can be managed by a combination of these factors :

- **Shielding** : a mass of absorbing material placed around the radioactive source (aluminium for bêta radiation, lead for gamma, polyethylene or concrete for neutrons)
- Increasing the **distance** to reduce dose (handling a source with forceps rather than fingers)
- Reducing the **time of an exposure** reduces the effective dose proportionally.

In a monitored area (zone surveillée), the amount of radiation absorbed is controlled by a passive dosimetry system (photographic film)



## Chemical risk



### Risks concerning physico-chemical properties :

This risks can be understood through the knowledge of the flash point (minimum temperature of a liquid at which its vapours will ignite in the presence of flame), the self ignition point (temperature at which the vapours will ignite spontaneously without any application of energy), and the explosion limits.

### Effects concerning toxic properties :

The transmission routes of toxic substances are respiratory, oral, skin and mucocutaneous routes.

This effects may be delayed or immediate, **reversible or irreversible**, acute (observed after 15 minutes), subacute (observed after 2 weeks), or long term and/or chronic effects.

A0141 TCI 25g Lot ABCDE-FGHI

Acrylic Acid (stabilized with MEHQ)

$C_3H_4NO_2$  CAS 79-10-7 >99.0% MW=72.06 d 1.05

Light sensitive. Air sensitive.

The Health Risks of this compound have not been fully determined, read the MSDS. For laboratory use only, not for drug or household use.

MTI TOKYO CHEMICAL INDUSTRY CO., LTD. 8-10-1 TOSHMAN-KITA-KU TOKYO, JAPAN  
東京三 東亜化学工業株式会社 Tel. 03-5945-8257 東京都港区東横田 9-12-5  
東京六 東京化学工業株式会社 Tel. 03-5989-9469 東京都港区東横田 9-12-5  
TCI AMERICA Tel: 1-800-423-8616 5211 N. Harrogate St., Yorkland, OH 47203, U.S.A.  
TCI EUROPE N.V. tel: +32 (0)3 735 0730 Boesmansweg 4 2070 Zwandrecht, Belgium

Flammable liquid and vapour. May be corrosive to metals. Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes severe skin burns and eye damage. Causes damage to Respiratory System. May cause damage to Liver. Causes damage to Respiratory System through prolonged or repeated exposure. Very toxic to aquatic life.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower. Do not breathe. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF INALLOWED: rinse mouth. Do NOT induce vomiting.

OSHA Haz. Com: CFR 1910.1200  
Combustible Corrosive Toxic Possible Carcinogen Obtain special instructions before use. Keep away from heat/ignition sources. Do not handle until all safety precautions have been read and understood.

製造商 TCI社 名称・成分 アクリル酸 (99%)  
危険性 第一石油類 危険等級Ⅱ 水溶性

The chemical product label is the first source of information on its dangerousness. Each user may also refer to the safety data sheet of the chemical product, available from the AP or Occupational Health and Safety manager of the ENSICAEN.

## Chemical risk



### Main prevention measures :

#### • **Good laboratory practice :**

- Replace dangerous chemicals with less dangerous ones
- Working with equipment in good condition (glassware, assembly, installation)
- Use and favor proper collective means of protection (extractor hoods, fume cupboard)
- Wear adequate personal protective equipment (EPI) : Lab coat, eye protection, adequate gloves, filter cartridge masks ...
- Respect some hygienic rules (do not smoke, Eat or drink in areas where chemicals are handled, do not store food or drink in fridge containing chemicals)
- do not mix unknown chemicals which might be incompatible with each other, be very careful during the collection of waste.

#### • **Storage of dangerous chemicals in LPC :**

Flammable solvents and chemicals are used in limited quantities and they are stored in security ventilated cabinets located in the small workshop. (room B17) (see the picture)



## Chemical risk



### **In case of accident : Burst by chemical**

- **Chemical contact with skin or clothes** : take off immediately soaked clothes and drench thoroughly, as soon as possible, with water or with the safety shower to eliminate the chemical until the emergency teams arrive.
- **Fluid chemical splashed in the eyes** : rinse affected eye, as soon as possible, with clean running water or better with the eyewash station, taking care that the washing water do not flow on the other eye.
- **In case of internal burn (ingestion)** : do not have the victim vomit and do not give him/her anything to drink, keep the product's packaging and call anti-poison services immediately.



WARNING ! The safety showers are designed to rinse head and body. They must not be use to rinse eyes, because the pressure or the high flow rate of the water, in certain cases, may damage eyes. The emergency eyewash stations are only designed to rinse eyes and faces. The safety shower can although be use in case of thermal burns. The safety shower and the eyewash station of the laboratory can be found near the « grey » clean room, main corridor and ground floor.



## Chemical risk



**Old symbols and danger indications that you can find on chemical products (will disappear in June, 2015)**



**E – Explosive**



**O – Combustive**



**F – Easily Flammable**



**F+ – Extremely Flammable**



**C – Corrosive**



**T – Toxic**



**T+ – Very Toxic**



**XI – Irritant**



**Xn - Noxious**








**N – Dangerous for the environment**



## Chemical risk



### New danger pictograms

SGH01	SGH02	SGH03	SGH04	SGH05
				
<ul style="list-style-type: none"> <li>• Explosibles instables</li> <li>• Explosibles, divisions 1.1, 1.2, 1.3, 1.4</li> <li>• Substances et mélanges autoréactifs, type A</li> <li>• Peroxydes organiques, type A</li> </ul>	<ul style="list-style-type: none"> <li>• Gaz inflammables, catégorie 1</li> <li>• Aérosols inflammables, catégories 1, 2</li> <li>• Liquides inflammables, catégories 1, 2, 3</li> <li>• Matières solides inflammables, catégories 1, 2</li> <li>• Substances et mélanges autoréactifs, types C, D, E, F</li> <li>• Liquides pyrophoriques, catégorie 1</li> <li>• Matières solides pyrophoriques, catégorie 1</li> <li>• Substances et mélanges auto-échauffants, catégories 1, 2</li> <li>• Substances et mélanges qui, au contact de l'eau, dégagent des gaz inflammables, catégories 1, 2, 3</li> <li>• Peroxydes organiques, types C, D, E, F</li> </ul>	<ul style="list-style-type: none"> <li>• Gaz comburants, catégorie 1</li> <li>• Liquides comburants, catégories 1, 2, 3</li> <li>• Matières solides comburantes, catégories 1, 2, 3</li> </ul>	<ul style="list-style-type: none"> <li>• Gaz sous pression :                             <ul style="list-style-type: none"> <li>- gaz comprimés</li> <li>- gaz liquéfiés</li> <li>- gaz liquéfiés réfrigérés</li> <li>- gaz dissous</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Substances ou mélanges corrosifs pour les métaux, catégorie 1</li> <li>• Corrosion/irritation cutanée, catégories 1A, 1B, 1C</li> <li>• Lésions oculaires graves/irritation oculaire, catégorie 1</li> </ul>

## Chemical risk

### New danger pictograms



<ul style="list-style-type: none"> <li>● Acute toxicity (oral, dermal, inhalation), categories 1, 2, 3</li> </ul>	<ul style="list-style-type: none"> <li>● Acute toxicity (oral, dermal, inhalation), category 4</li> <li>● Skin irritation, categories 2, 3</li> <li>● Eye irritation, category 2A</li> <li>● Skin sensitization, category 1</li> <li>● Specific target organ toxicity following single exposure, category 3                             <ul style="list-style-type: none"> <li>- Respiratory tract irritation</li> <li>- Narcotic effects</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Respiratory sensitization, category 1</li> <li>● Germ cell mutagenicity, categories 1A, 1B, 2</li> <li>● Carcinogenicity, categories 1A, 1B, 2</li> <li>● Reproductive toxicity, categories 1A, 1B, 2</li> <li>● Specific target organ toxicity following single exposure, categories 1, 2</li> <li>● Specific target organ toxicity following repeated exposure, categories 1, 2</li> <li>● Aspiration hazard, categories 1, 2</li> </ul>	<ul style="list-style-type: none"> <li>● Acute hazards to the aquatic environment, category 1</li> <li>● Chronic hazards to the aquatic environment, categories 1, 2</li> </ul>

## Cryogenic risks



### Cold contact burns and freezing (Frostbite)

The cryogen use in the laboratory is liquid nitrogen. Its boiling point is  $-196^{\circ}\text{C}$ . The extremely low temperature of liquid nitrogen can cause severe burn-like damage to the skin either by contact with the fluid, surfaces cooled by the fluid or evolving gases. Skin can freeze and adhere to liquid nitrogen cooled surfaces causing tearing on removal.

**Face protection, gloves and a laboratory coat must be worn when dispensing liquid nitrogen.**

Moreover, soft materials e.g. rubber and plastics become brittle when cooled by liquid nitrogen and may shatter unexpectedly.

**WARNING : Do not believe that gloves can perfectly protect your skin, if the liquid nitrogen soak the gloves, you must remove them immediately !!!**



## Cryogenic risks



**Explosion** (excessive buildup of pressure in container of cryogenic fluid)

Heat flux into the cryogen is unavoidable regardless of the quality of the insulation provided. Since cryogenic fluids have small latent heats and expand 700 to 800 times to room temperature, even a small heat input can create large pressure increases.

Dewars must be moved carefully

Vents must be protected against icing and plugging. When all vents are closed, enough gas can boil off in a short time to cause an explosion. Vents must be maintained open at all times.



## Cryogenic risks

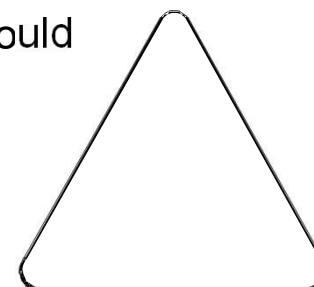


### Asphyxiation (displacement of oxygen by inert gas)

Large volumes of nitrogen gas are evolved from small volumes of liquid nitrogen (1 litre of liquid giving 0.7 m<sup>3</sup> of vapour) and this can easily replace normal air in poorly ventilated areas leading to the danger of asphyxiation. It should be noted that oxygen normally constitutes 21% of air.

Atmospheres containing less than 10% oxygen can result in brain damage and death.

The container should be left in a well ventilated room.

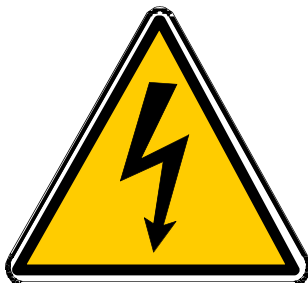


At LPC, there is an oxygen monitor in each room where liquid nitrogen is used. If a monitor triggers an alarm, you must leave the area immediately and wait the notification of the AP or the SSE department before coming back.



## Risks at LPC

### Danger pictograms you can find at LPC



Electrical danger



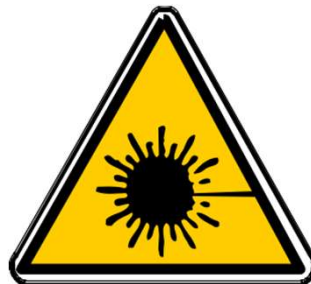
Inflammable materials



Ionizing radiations



Asphyxia risk



Laser risk



High temperature



Noxious or irritant materials



Toxic materials



High magnetic field

## Working with computers



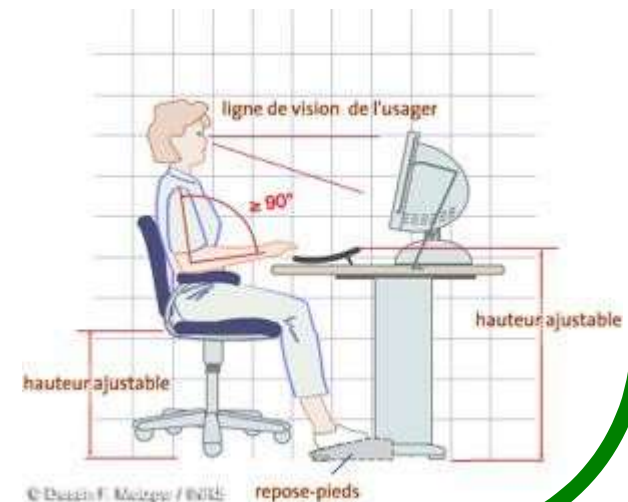
### Working with computers many hours during a day can cause :

- **Musculoskeletal problems.** These types of problem can be caused by maintaining an unnatural or unhealthy posture while using the computer or inadequate lower back support or sitting in the same position for an extended period of time or may be an ergonomically poor workstation set up.

- **Eye strain.** It can be caused by staring at a fix object for extended periods of time (like a computer). Regular users of computers may develop focusing problems. Temporary colour distortion has also been reported.

### Main prevention :

- Use a correct working position, with special attention to light sources : source of daylight parallel to the mean direction of vision, use screens or blinds on windows, use light fixtures with an anti-flutter protection
- Set screen luminosity, contrast, anti-reflection filter to achieve a clear easy-to-read screen display
- Properly arrange the different elements of the workstation and adopt a correct posture.
- Take periodic pauses in case of continuous screen work.



## Working with computers



**Click on the picture to see the animation**



## Handling

### Evaluation of manual materials handling risk factors :

- Load characteristics : weight, volume, shape (cutting edges, ...)
- Load fixing system : not present or inadequate, incorrect position of the load
- Work environment : state, slope of the floor, dimensions, lighting, temperature, noise
- Handling resources : bad use, insufficient maintenance and check, using inadequate tools
- human factors : lack of personnel, unhealthy posture, insufficient formation
- wearing personal protections : gloves, security shoes, lab coat
- work organisation : repetitive movements, absence of breaks, distance to be covered



## Handling

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- work organisation : repetitive movements, absence of breaks, distance to be covered

### **To avoid accidents, such as :**

- load falls
- collisions
- injuries and lesions
- lumbago or dorsalgia ...



**Adequate handling of loads**



**You must avoid torsions and bending your back**

## Handling



**Click on the picture to see the animation**

## Handling



**Click on the picture to see the animation**

## Safety registers

### • **Health and safety register :**

In accordance with Article 47 of the Decree of 28 May 1982 on health and safety in public service, all remarks and suggestions to improve professional risks prevention and work conditions must be recorded on a register. This one shall remain at the disposal of the agents of a laboratory.

In this register, any agent can record all accident, incident or any other event occurring in the laboratory, such as :

- an incident that you have seen or experienced
- a risk
- ...



The analysis of those records is very useful to take action to correct the problems and prevent a reoccurrence.

### • **Immediate and serious dangers register – right to withdraw**

Immediate and serious danger is a serious threat which can damage, within short time, the health or physical integrity of a worker. This situation must be recorded in this register, which results in an immediate inquiry conducted by the laboratory director and/or a member of the “Comité Hygiène et Sécurité” (Health and Safety Council).

**These records shall be made available on request to the agents, in the AP’s office.**

## Waste management

- **Common waste :**

- Trash bag or in the containers with a grey or brown cover, outside the building

- **Glass bottles (no chemical) :**

- Container for the collecting of glass located in front of the CROUS restaurant

- **Used batteries:**

- Container located at the secretariat, room C16/C17

- Container located at the ENSICAEN entrance

- **Ink cartridges or toners :**

- Container located at the computer service, room B6

- **Paper or cardboard box :**

- Grey garbadges located near the laser printers (for the printings)

- Containers with a **yellow** cover, outside the building for the cardboard box

- Containers with a **blue** cover, outside the building for all sort of paper)

- **Specific Waste (chemical, computer, ...) :**

- Seek advice from the AP or the SSE department



## Contacts

- **Person in charge of health and safety (AP) :**

Olivier GUESNON – bureau B14 – poste 2418  
Frédéric LEBOURGEOIS – Atelier D1 – poste 2449

- **Occupational Health and Safety manager of the ENSICAEN :**

Nicolas FRAILLON – SSE manager – extension 2668 or cell 06.85.24.80.47 Damien  
AUGER – SSE host – extension 2669

- **Person in charge of Radioprotection (PCR) :**

Jean-Claude ANGELIQUE – office E5 – extension 2511  
Jean-Louis GABRIEL – office B7- extension 2432

- **Work first-aid person (SST) :**

Sébastien DROUET – bureau E15 - poste 2981  
Benoit GUILLON – bureau E7 - poste 2547  
Philippe LABORIE – bureau E30 - poste 2978  
Emeline OLIVEIRA – bureau E11 - poste 2551  
Laurent LETERRIER - bureau E31- poste 2995  
Frédéric LEBOURGEOIS - Atelier D1- poste 2449  
François MAUGER – bureau D19 – poste 2512  
Valentin PESTEL – bureau E2 – poste 2983  
Gregory LEHAUST – bureau E7 – poste 2989  
Yves LEMIERE – bureau D18 – poste 2964

- **Secretariat :**

Aurélié GONTIER – office C18 – extension 2992



## Questions and Answers

- **Where is the first aid kit ?**

- In front of the secretariat
- On the first floor, near the laser printer



- **Where are the safety registers ?**

- In the central hallway near the printer room.

- **How and where to find personal protection equipment ?**

From the AP or SSE manager of the ENSICAEN



- **Where is the fire assembly point ?**

Next to the main building of ENSICAEN, near the fire escape stair of the first floor



- **Where can you find the general safety instructions ?**

At each building exits



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