

## Waste Management

- Do not dump chemicals in the sink
- Write the name and nature of contents on bottles and containers
- Throw used PPE in appropriate trash can due to the nature of the contaminant

### General non-contaminated waste :

→ Standard garbage bag



### Batteries and ink cartridges :

→ Campus dustbin

### Liquid chemical waste : (cf. storage rules)

→ See labels on containers :

- halogenated chemicals
- Non halogenated chemicals
- acid-bases

### Solid chemical waste :

→ special container

### Uncontaminated glass waste :

→ plasticized boxes

### Contaminated glass waste :

→ rinse before wasting in plasticized boxes

### Syringes and needles :

→ Glass bottle (2,5 L) or aluminum bottle (5L)



Toxic



Oxidizer



Danger



Corrosive



Flammable



Carcinogenic, Mutagenic,  
toxic for Reproduction



Gas



Pollutant



Explosive

## Compulsory or possible personal protective equipment (PPE)

Hand protection



Eye protection



Inhalation protection



Face protection

Hearing protection



Lab coat

## Storage Rules

Acid + Base → incompatible storage

	+	-	-	+
	-	+	-	!
	-	-	+	+
	+	!	+	+

+ : compatible

- : incompatible

! : compatible under certain conditions

## Fire Extinguishers

	Fire	Extinguisher
	<b>Burning Solids</b> paper, wood, textile, PVC, power cable...	- 1. Water (+/- additive) - 2. Powder
	<b>Burning Liquids</b> hydrocarbon, alcohol, gasoline, Paint...	- 1. CO <sub>2</sub> - 2. Water (+/- additive) - 3. Powder
	<b>Burning Gases</b> propane, acetylene, butane, ...	- 1. Stop gaz source - 2. CO <sub>2</sub> - 3. Powder
	<b>Burning Metals</b> aluminum, sodium, titan, magnesium...	- 1. Sand - 2. Fir blanket - 3. Powder

For electric fire sources, use CO<sub>2</sub> Extinguishers.

## AP (hygiene and security agents):

Pascale Cividino - bât. C - 04.76.63.56.08 – room 109

Nicolas Spinelli - bât. Nanobio - 04.56.52.08.33 - room 203

Michaël Holzinger - bât. Nanobio - 04.56.52.08.11 - room 104

## Agent SSIAP (fire prevention agents):

Claude Dubouloz - bât. C - 04.76.51.35.93 – ground floor

P.M. Léo - bât. C - 04.76.51.49.23 - room 136

## First aid competent person :

See the listing



## Radioactivity competent worker :

JF Constant - bât. Nanobio - 04.56.52.08.39 - room 210

A du Moulinet d'Hardemare - bât. C - 04.76.63.57.05 – room 318

Christian Philouze - bât. C - 04.76.51.45.84 -room 137

## Defibrillator:

Ground Floor bât. B et C



## FAQ

- Where finding medicine cabinet?...each team
- where finding hygiene and security register?...library bat. C 2<sup>ème</sup> floor
- Where having PPE?...Ask to AP
- Where is the meeting point?... outside on the parking
- Where finding security instruction?... at each floor

## Rules for accident prevention

- Respect security rules
- Know procedures in case of fire or accident
- Locate extinguishers and fire alarm box
- keep floors and stairs clear
- Do not prevent closing of firewall doors
- keep clear the access to water valve and emergency shut-off
- Close doors and windows when you leave the lab

## General security instruction

### In case of fire



Try to extinguish it with closest extinguisher



If fire is uncontrollable push the fire alarm box (red)



**Dial : 18 for calling the firefighters**

Point out :

- location of fire (building, floor, lobby)
- Seriousness (local or generalized)
- First steps (extinction attempt...)

**DO NOT HANG UP FIRST**  
**Wait the fireman asks you to hang up**

### In case of alarm in the building



Go to the nearest emergency exit following instruction of the guide and the signs

- Do not use elevators
- Do not turn back
- In case of smoke: crouch, air is fresher down



When you are outside go to the meeting point

### In case of incidents or malaises



Get help from a first aider



**Dial : 15 for calling the urgency**

Point out :

- location of victim (building, floor, lobby)
- Seriousness (aware or not, type of injury, ...)
- First steps done (first aid...)

**DO NOT HANG UP FIRST**  
**Wait the medical practitioner asks you to hang up**

## Professional Risk prevention at the DCM

### Screen work

#### Risks

- Visual tiredness
- muscle or sacroiliac pain
- stress

#### Safety

- screen should be perpendicular to windows
- Adjustment of chair, keyboard and mouse
- Take a break every 2 hours



### LASER

#### Risk

- Retina lesion
- Skin burn

#### Safety

- DO NOT expose your eyes to a laser
- Use appropriate PPE (goggles)
- labeling of rooms



### Electricity

#### Risk

- electrification (burn, tetany)
- electrocution (cardiac arrest)

#### Safety

- do not pull on the cable for unplugging or moving an apparatus
- do not modify an electric plug
- do not overload multiple plug
- do not touch a plug with wet hands



### Handling

#### Risk

- LBP and backache
- falling of load
- collisions

#### Safety

- Appropriate PPE (gloves, shoes)
- do not handle too heavy charges
- Use of pallets, truck sand trolleys



### Chemicals

#### Risk

- inhalation
- absorption (skin)
- burn

#### Safety

- product identification (cf. pictogram)
- respect of label and storage rules
- Use PPE (gloves, mask, lab coat)
- Use collective protective equipment (fume hood).



### Nanoparticles

#### Risk

- inhalation
- absorption (skin and digestive pathway)

#### Safety

- PPE (gloves, mask with filter, coat, goggles)
- Collective protective equipment (fume hood, glass bench).
- Transportation and storage in impervious bottles



### X ray

#### Risk

- Mutagenic
- Cancer
- burn

#### Safety

- No access without authorization
- respect of radioprotection rules
- labeling of rooms



### High pressure

#### Risk

- explosion
- implosion
- leak (harmful, flammable gases)

#### Safety

- protective grid and screen
- control of installation
- Respect of rules of use (pressure, temperature,...)

