

# SAFETY AND HYGIENE REGULATIONS



UNIVERSITAT POLITÈCNICA DE CATALUNYA  
BARCELONATECH  
Servei de Prevenció de Riscos Laborals

## ACTION IN THE CASE OF A MERCURY SPILL

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### PURPOSE AND AREA OF APPLICATION

- Purpose: to determine a procedure for safe action in the case of a mercury spill.
- Area of application: **small spills of mercury** that could occur if a thermometer (approx. 0.5 g of Hg), barometer or manometer breaks.

**NOT APPLICABLE to large mercury spills**, for example, spills larger than that which could be caused by a broken thermometer. In this case, the following procedure should be followed:

- **Leave** the place where the spill occurred, leaving a natural or artificial **ventilation** system in place.
- **Inform** the person responsible for the laboratory about the incident.
- **Identify and signpost the area** where the spill occurred to prevent people from entering it.
- The person responsible for the laboratory **must immediately communicate the type of spill to the company in charge of waste management**. See: <https://www.upc.edu/gestiosostenible/>
- Once the mercury has been collected, **clean the affected area** with soap and water.
- **Inform the UPC Occupational Hazard Prevention Service** about the incident, according to the established procedure for investigating accidents/incidents. See: <http://www.upc.edu/prevencio/ca/accidents/investigacio-daccidents>

### GENERAL RECOMMENDATIONS

BEFORE ACTING

- The division of mercury into small drops increases its evaporation capacity, as does proximity to heat sources or the sun's rays. Mercury evaporates at room temperature and its vapours are highly toxic. Consequently, it is essential to **ventilate the affected area**.
- The laboratory must have a **mercury collection kit** available and the required **personal protection equipment (PPE)**.



Example from SCHARLAB, S.L.  
For further information, see: <http://www.scharlab.com>



Example from Haléco Iberia, S.A.  
For further information, see: <http://www.haleco.es>

PROCEDURE TO FOLLOW

#### 1 Put on personal protection equipment (PPE):

- Disposable **chemical protection gloves** (nitrile, vinyl)
- **Safety goggles**
- **Protective mask** with a specific filter for mercury vapour (Hg-P3)



#### 2 Collect the mercury spill, following the specific procedure determined by the mercury collection equipment that is used.

Alternative: absorb the mercury using calcium polysulfide, sulphur or other amalgams.  
The mercury can also be sucked up using a disposable Pasteur pipette.

#### 3 Put the collected mercury into a container labelled PURE MERCURY. Keep the container tightly shut.

If possible, seal it with glycerine and immerse it in water.

#### 4 Clean the entire contaminated surface with water and soap. All of the material used must be thrown away as contaminated material.

#### 5 Label each container appropriately according to its content:

Container of pure mercury  
**Group VII: special**

Date:

Container of neutralised mercury  
**Group VI: solids**

Date:

Container of PPE, Pasteur pipettes,  
material used for cleaning, etc.  
**Group VI: solids**

Date:

#### 6 Follow the waste collection procedure established by the UPC