



# INSTRUCTIONS

## Handling of liquid nitrogen in closed or open mobile cryogenic containers




### ❖ RISKS AND HAZARDS

- Risk of frost burns in contact with skin. 
- Risk of fainting or asphyxiation by evaporation of the liquid in a confined enclosure (decrease in O<sub>2</sub> concentration). 
- Risk of condensation of oxygen in the air gradually enriching the liquid with oxidizer.
- Risk of explosion by evaporation of the liquid in a closed container (increase in pressure).
- Materials weakened at very low temperature by contact with the liquid.

### ❖ SECURITY MEASURES

- Observe the instructions for use of the cryogenic container and check its stability during transport.
- Read carefully the safety data sheets of the product and the actions to be taken in case of accident.
- Ensure that personnel are trained in the handling of liquid nitrogen.
- Wear personal protective equipment: protective visor, cryogenic gloves (EN511 – 2.2.1), lab coat, pants and closed shoes.



- Ideally, do not accompany the container with liquid nitrogen in the elevator (risk of asphyxia in case of breakdown). 
- The storage space for containers shall be ventilated. The storage in the cold room is therefore to be avoided unless an automatic detection of lack of oxygen with alarm is present.
- Siphoning must be monitored. Avoid transferring in another container.

### ❖ IN CASE OF ACCIDENT

- Form the 7 (Solbosch, Plaine, Flagey, Gosselies).
- Form the 22 (Erasme).
- Form the 112 (Auderghem, USquare, Charleroi and others).

### ❖ FOR INFORMATION

- 1 liter of liquid nitrogen produces by evaporation about 700 liters of nitrogen gas
- Liquid nitrogen and cold nitrogen gas are heavier than air (accumulation on the ground).