




# LSRA 12 – Cryogenics

## Lab Standard Risk Assessment 12: Use of Cryogenics in labs

*If referencing this standard to cover your lab work, the scope of the work must match this standard and the below controls must be communicated and followed by all operatives. All lab work must be in accordance with the chemical safety hand book.*

**Task Scope:** Use of cryogenics for cooling or freezing of samples (up to 5L)




<b>Persons at Risk</b>	Operatives	Lab Technicians	Others in lab
<b>Exposure Routes</b>	Inhalation	Skin contact	Eye contact

<b>Hazards</b>			
	Oxygen depletion – asphyxiation hazard	Pressure releases and over pressure of vessels	Extreme cold by contact

### Control Measures

Volumes and pressures are reduced as low as possible	The largest space is used for cryo work to ensure good ventilation	Labs with oxygen monitoring are used for the work	People are trained in the correct response to alarms
The PPE stated below is provided and used	Use containers with loose fitting lids	People are able to demonstrate competence in cryo handling	

### Personal Protective Equipment

		
Safety glasses	Thermal cryo gloves	Closed, water resistant shoes

### Emergency Arrangements

#### Uncontrolled cryo release or low oxygen alarm

Get out of the area to a safe place, contact EHCs for a response, ensure other do not enter.

#### Skin and eye splash

Irrigate the area with water, contact a first aider

#### Cold burn

Contact a first aider, gently defrost with Luke warm water, get medical attention if serious

**Risk - Medium**