





LSRA 6 – Flow Cells

Lab Standard Risk Assessment 6: Use of flow cells

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: Preparation, commissioning and test of flow cells (gas and liquid)

Persons at Risk	Operatives	Lab Technicians	Others in lab
Exposure Routes	Inhalation	Skin contact	Eye contact

Hazards				
	Pressure releases	Hazardous / flammable substances	Extremes of temperature	Reactions

Control Measures

Volumes and pressures are reduced to as low as possible – flow restriction installed	Appropriate pressure relief devices are fitted	Flow cells are secured during use	Mechanical joints are leak tested and confirmed as being secure	Exhausts and pressure relief devices are protected by LEV
The reactions are well understood	Then substances and products are known	The materials of cell construction are resistant to the substances	Cell withstand exceeds the expected pressures by 1.5%	Appropriate gas monitoring is used.

Personal Protective Equipment

		
Safety glasses	Disposable gloves	Lab coat

Emergency Arrangements

Hazardous gas release – shut gas off if safe to do so, move to a safe area and contact the EHCs – prevent others from entering the area.

Over pressure / release – shut down the flow components of the experiment and ventilate the area. For large or complex spills, contact the EHCs for assistance.

Risk - Medium