Risk Assessment of Laboratory Work with Chemicals (AFS 2011:19)1 (LBE)2(MSBFS 2020:1)3

Department/Division: **Pure and Applied Biochemistry**

Operation/Activity: **Bunsen Burner usage**

The operation includes handling of the following chemicals, mixtures and solutions

Chemical/Mixture/Solution	CAS No.	Amount	Indications of danger
70% Ethanol	64-17-5	500 mL	Is highly flammable and can cause severe eye irritation

Identification of separate operations/activities that may involve the risk of accident or risk to health

Operation/Activity	Problem	Consequence	Probability	Assessed risk	Risk-reducing measures
Ethanol usage for disinfecting nearby surfaces	Accidental overuse or uneven distribution when disinfecting surfaces	Serious	Possible	Hazardous	Ensure that the ethanol is completely evaporated before switching on the burner
Opening and closing of main valve and secondary valve for gas supply	Improper usage of valves can damage the set-up	Serious	Possible	Hazardous	Ensure that the valves are operated by following suggested procedure
Use of lighter for switching on the bunsen burner	Accidental ignition of nearby materials	Serious	Not very likely	Hazardous	Ensure that the lighter is used as demonstrated and is kept away from flammable sources
Working with bunsen burner	Accidental ignition of nearby material or high possibility for self-burns	Serious	Possible	Hazardous	Ensure that there are no flammable materials near the burner and switch it off when not in usage.
Switching off the bunsen burner	Improper switching off of the bunsen burner	Mild	Probable	Hazardous	Ensure that the burner is completely turned off after usage or when not in use.

	Yes/No	Comments:
Rules for working alone has been observed	**Yes**	Supervisor is to be present at all time, no individual work is allowed.
The possibility of evacuation and ventilation/water/power failure has been taken into account	**Yes**	Work will be stopped, flasks will be closed, staff will evacuate (long power outage) or wait until the power/water/ventilation is turned on
Environmental issues have been considered	**Yes**	Follow waste management rules, no concentrated substance will be poured down the drain
Special risk assessment for pregnant staff has been done	**Yes**	

References:

Chemical Database KLARA and Safety data sheets of different chemicals

Date: 17-06-2026

Risk assessment made by:

Name: **Hema Madhuri Veera**

Risk assessment checked by:

Name:

1) AFS 2011:19 Chemical Hazard in the Working Environment, provisions (amanded and reprinted in 2014:5; 2014:43; 2017:4; 2018:2; 2019:9)

2) Lag (2010:1011) om brandfarliga och explosiva varor (LBE)

3) MSBFS 2020:1 föreskrifter om hantering av brandfarlig gas och brandfarliga aerosoler

Last updated:June 17, 2026