HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

Surname: **Initials:**

Student No: **Contact No:**

Email : **Project leader :**

Project title:

PART 1: HAZARD IDENTIFICATION

1) List of activities, equipment, substances and situations, with location(s) that pose hazards

2) Brief Description of the Activities/Equipment/Substances/Situations

3) Persons that will/can be affected *(Consider other students in vicinity, visitors, etc.)*

PART 2: RISK ASSESSMENT

Risk = Likelihood (of event occurring) **x Severity** (seriousness of harm caused)

Using the definition of Risk which covers both likelihood (chance) of occurrence and severity of harm (taking into account population at risk and level of injury possible) calculate the risk by grading (rating) the likelihood (1-4) and the severity (1-4). Multiply the two ratings together to give a final Risk rating figure between 1 and 16.

Guideline for ranking:

Rating	Likelihood	Severity
1	Very unlikely	Minor injury - No treatment or only first aid required
2	Might happen eventually	Injury requiring doctor's treatment; brief hospitalization
3	Likely to happen eventually	Severe injury causing permanent damage; disability
4	Will happen	Very severe injury; fatality

Hazard Identified *(List all hazardous substances handled, equipment used, actions carried out or situations involved, e.g. extreme pressures, temperatures, voltages, heights)*	**Likelihood** of Incident occurring (grade 1-4) (A)	**Severity** (Consequences) of Incident (grade 1-4) (B)	**Risk** (likelihood x Severity) (A x B)

PART 3. CONTROL MEASURES

For Control Measures consider and implement the *Hierarchy of Controls* in order of preference:

1. Elimination
2. Substitution
3. Mechanical controls
4. Administrative controls
5. Personal protective equipment (PPE)

It is imperative that the hazards with the highest risk receive priority for control and that they also have the highest practical order of control measure.

Hazard List hazards as identified and listed in HIRA table above)	**Controls** List appropriate controls to be implemented for the identified hazards, such as • *Actions (e.g. obtain and study MSDS for substance; obtain antidote for toxic substance;)* • *Equipment (e.g. provide special fire extinguisher; test air with CO tester every session; work in fume cupboard)* • *PPE (e.g. leather heat resistant gloves; respirator with activated carbon filter cartridge)*

Ensure all persons involved and at risk read risk assessment before commencing practical work in laboratory or workshop.

Original signed copy to be kept by Faculty/School

Student signature: Date:

Signature of project leader: Date:

Signature of Safety Officer: Date:

PART 4. NOTIFICATION OF CHANGES

(To be completed by Student and signed off by Student, Project Leader and Safety Advisor)

Any significant change to the working activity or equipment must be suitably assessed.

1) Description of Changes to Activity/Equipment *(Brief details only)*

2) New Potential Hazards Associated with Changed Activity/Equipment

3) New control measures to be Implemented

Signed:

Student:

Project leader:

Safety advisor:

Date:

PART 5. INFORMED CONSENT DECLARATION

I, the undersigned

Full Name and Surname

Declare that I have read and understood the preceding Health Identification and Risk Assessment (HIRA) associated with this project as described in Section 1, 2 and 3 of this HIRA document. I have had the opportunity to discuss the content of this document with my study leaders, laboratory managers and safety officer of the Faculty of Engineering of the North-West University. I understand that there are personal risks associated with the work required for this project and that all possible measured have been taken to ensure my safety and health while working in laboratory of the School of Chemical and Minerals Engineering. I hereby consent to follow all safety rules and regulations as stipulated by the NWU and the Faculty Safety Committee and as was explained to me by the Safety Officer and Laboratory managers of the School of Chemical and Minerals Engineering. I understand that my failure to adhere to the health and safety rules and regulations could lead to me being injured and/or fail final year laboratory project (CEMI479).

Signed at Potchefstroom on this date:

Signature of student

Signature of Laboratory manager

Signature of study leader

Signature of Safety Officer

Signature of Witness 1

Full Name and Surname

Signature of Witness 2

Full Name and Surname