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ENVIRONMENT & SAFETY ALERT

SAFETY ALERT # 002

Employee received chemical to the eye

Actual consequence: Serious Harm Injury – superficial chemical burn to eye, no permanent damage

Potential consequence: Potential blindness in eye

What Happened

- Worker was mixing zinc chloride solution
- Worker was trying to break up a lump of zinc chloride
- Zinc chloride splashed directly into the workers right eye
- The worker suffered a superficial chemical burn to his right eye from a splash of zinc chloride and water solution.
- The worker was wearing Personal Protective Equipment (PPE) including safety shoes, laboratory coat, face mask and gloves for the testing involved. For this test, gloves and goggles are listed in the test method. The worker did not wear goggles while preparing the solution

Root Causes

- Training within the Laboratory focused more on the methodology and result of the test method, consideration into the health and safety procedure and required PPE noted in 9.3.1 of the test was overlooked.
- Training records and the Internal Accreditation New Zealand (IANZ) skills register did not include reviewing health and safety requirements for the test.
- General health and safety records have not been kept up to date including, Material Safety Data Sheets (MSDS), PPE register, and Hazard Register.
- Health and safety communication and training records do not include acknowledgement form from the trainee that training is understood.

Immediate Actions Taken

- Employee received eyewash on site, then eye irrigation at the hospital. This included follow up appointments at an Optometrist.
- Incident investigated internally by trained Incident Cause Analysis Method (ICAM) Investigator.
- WorkSafe notified of incident
- WorkSafe decided not to investigate

Immediate risks / learnings / corrective actions

- The laboratory held a meeting on site for all staff on chemical safety

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- A full internal investigation took place
- An external Health and Safety consultant was assigned with auditing all laboratories nationwide in order to identify any health and safety gaps
- The consultant is also developing a health and safety guideline checklist for all laboratory managers in conjunction with the company's NZ H&S Officer.

Company Investigation outcome / learnings / recommendations

- Safety Alert released to all NZ staff
- Updating training records and skill competency register to include health and safety
- Review all test methods requiring PPE are following best practice guidelines
- Procedure to be written on the correct way to handle chemicals
- Health and safety Audit review of all Laboratories nationwide
- Develop Health and Safety Guideline checklist for Laboratory Managers nationwide
- Review IANZ Skill guideline to include health and safety criteria
- Training and skill review for staff handling/storing and mixing chemicals
- Reminder systems set up to ensure review of MSDS sheets, hazard register and chemical folder
- Refresher laboratory induction for all laboratory staff nationwide
- Safe Behaviour Observations key performance indicators set to improve overall safety culture in Laboratory