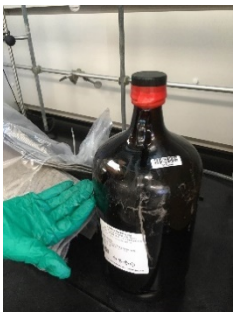
Triethylamine Exposure

Situation: EHS received word of an exposure to triethylamine in through the submission of a worker's compensation notice of accident form. An investigation was conducted.

An employee in the Chemistry Department was opening a box containing triethylamine. The triethylamine was packaged in the appropriate DOT shipping box. Inside the box was a secondary containment bag with spill absorbent material. The triethylamine was inside of an amber bottle with a plastic cap and tamper evident seal. The box had no apparent damage. Additionally the bag appeared to have no liquid inside and the cap was securely in place. When the secondary containment was opened the employee noticed the smell of triethylamine and felt burning in his chest. The employee left the area and reported the incident to the supervisor, who had the employee fill out a notice of accident. The Chemical Safety Coordinator in the chemistry department then donned a respirator and moved the bottle to a fume hood for storage until it could be picked up and disposed of properly.



Causes: Failure to properly mitigate the hazard presented by volatile chemicals.
The bottle was leaking inside the secondary containment.

There is no fume hood in the labeling room and there is no other space available for such labeling activities.

PPE is not used because there is no procedure requiring it.

A systematic underestimation of risk.

Corrective Actions: Report these types of incidents directly to EHS.

Create a written procedure that documents the possible hazards and how to mitigate them. Communicate and train employees on these hazards before they begin work. This procedure should include a Job Hazard Analysis that outlines how to mitigate hazards such as leaking chemicals.

Prevention: Use engineering controls to mitigate the exposure hazard posed by a leaking bottle. Opening the secondary containment inside a fume hood would accomplish this.

Thoroughly inspect packaging while still inside secondary containment.

Respiratory Protection would be appropriate if the container is found to be leaking and needs to be properly disposed of.

Reference: UNM *Chemical Hygiene Plan*