FUME HOOD EXPLOSION

In February, an explosion occurred in a fume hood. Although the investigation did not reveal the actual cause, it did identify several activities that may have contributed to the explosion.

A fume hood is a laboratory safety device designed to protect the operator from exposure to hazardous chemicals (ex. toxic, corrosive, flammable, malodorous, fumes, vapours, aerosols or dusts) used in the workplace. This is accomplished by creating a shield from hazardous chemical work and exhausting the contaminants, thus providing containment. It is important that all potentially harmful chemical work be conducted inside a properly functioning fume hood with the sash set at the proper level.

❌ A fume hood must not be used for storage as the airflow is disrupted by the containers and this causes inadequate containment of fumes and increases personal exposure.

❌ Incompatible chemicals must not be stored together. Compatible waste liquids may be collected in appropriate disposal bottles but only if there is a properly maintained inventory of the contents. For a list of compatible chemicals or proper storage please consult the University’s Controlled Products Standard document on our website.

❌ Do not accumulate chemical waste. Certain chemicals become unstable after a period of time. Check the expiry date on chemical bottles.

❌ Concentrated acids should never be disposed down the drain. Concentrated acids as well as all waste chemicals must be collected in approved and properly labeled containers. Contact the Environmental Health and Safety Office for information on proper disposal.

Storage of Non-Compatible Chemicals

Result of Non-Compatible Chemicals Storage

Please feel free to contact our Office if you require further information on this issue.

Environmental Health and Safety Office

Hazard Alert – 02-003

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