

PolySeed®

Technical Report

Hazard Warnings

Recognition, Respect and Responsibility

The laboratory is a hazardous place to work. Walk through any laboratory door and you will be confronted with a wide array of chemicals, biologics, and instrumentation. Nearly every common laboratory technique, practice, or procedure carries some risk of exposure. Even the simple task of washing dishes in a laboratory sink poses safety hazards that can result in serious injury.

In this issue of PolySeed Technical Report, we wish to remind you of the very real dangers involved in working with or around hazardous materials. There are inherent risks associated with working in chemical-rich environments and it is extremely important to **RECOGNIZE** that you are working under special circumstances, **RESPECT** the power of the chemicals that surround you and take **RESPONSIBILITY** for your own safety by knowing where and why potential hazards exist.

So how much do you know?

Take a look at the chart on the next page, do you know which hazard each symbol represents? Do you know the definition of each hazard category? Do you know which chemicals in your laboratory are hazardous? Do you understand why those chemicals have been classified as such?

How did you do? Do you feel confident in your knowledge or could you stand to learn more? Either way, the tasks that lie ahead should be clear. If you don't know your stuff, learn it. If you do know your stuff, teach it. By taking responsibility for ourselves and by concerning ourselves with the health and safety of those around us, we all do our part in achieving a safe, productive workplace.

KNOW YOUR HAZARD WARNINGS

COMBUSTIBLE

A term the NFPA, DOT, and others use to classify certain materials with low flash points that ignite easily. The DOT defines a combustible liquid as a liquid with a flash point above 141° F (60.5° C) and below 200° F (93° C).



INFECTIOUS SUBSTANCE

A viable microorganism or its toxin that causes or may cause disease in humans or animals.



COMPRESSED GAS

Any material contained under pressure, i.e., dissolved gas or liquefied by compression or refrigeration. Refrigerated gases may cause frostbite on contact. Carefully handle and properly store all compressed gas cylinders.



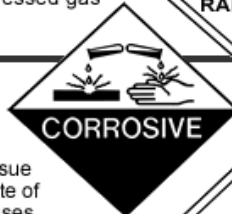
RADIOACTIVE

A source of ionizing rays produced by the disintegration of atomic nuclei. Overexposure of living tissue to ionizing radiation results in cellular damage.



CORROSIVE

A liquid or solid that causes visible destruction of or irreversible alterations in living tissue by chemical action at the site of contact; or a liquid that causes a severe corrosion rate on steel or aluminum.



POISONOUS MATERIAL

A material, other than a gas, that is known (on the basis of animal tests) to be so toxic to humans or causes such extreme irritation as to afford a hazard to health.



EXPLOSIVE

A material that produces a sudden, almost instantaneous release of pressure, gas and heat when subjected to abrupt shock, pressure or high temperature.



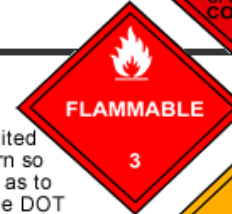
PYROPHORIC

Describes materials, even in small quantities, that without an external ignition source, can ignite within 5 minutes after coming in contact with air.



FLAMMABLE

Describes any solid, liquid, vapor or gas that can be ignited readily and when ignited burn so vigorously and persistently as to create a serious hazard. The DOT defines a flammable liquid as a liquid with a flash point at or above 100° F (37.8° C) and not more than 141° F (60.5° C).



OXIDIZER

The DOT defines oxidizers and oxidizing agents as a substance that yields oxygen readily to cause or enhance the combustion (oxidation) of organic matter. Oxidizers are significant hazards in a fire situation. Contact may cause caustic burns.



WATER REACTIVE

Describes a material that by contact with water becomes spontaneously flammable or gives off a flammable or toxic gas and presents a health hazard.



CARCINOGEN

A material that either causes cancer in humans, or, because it causes cancer in animals, is considered capable of causing cancer in humans.

