

EXTREMELY HAZARDOUS CHEMICALS

1. Definition

For the purpose of the Manual appendix H, an extremely hazardous chemical is defined as a chemical:

- A. that requires special handling protocols,
- B. that requires safety precautions outside of those normally provided for in a chemical laboratory,
- C. requiring engineering controls outside of those normally provided for in a chemical laboratory or
- D. that has specific regulatory safety and/or security requirements.

The following chemicals are considered extremely hazardous chemicals:

Acetone cyanohydrin,
Boron tribromide
Bromine pentafluoride
Bromine trifluoride
Butyl Lithium Compounds
Calcium phosphide
Chloroacetyl chloride
Chlorosulfonic acid
Lithium nitride
Magnesium phosphide
Methyldichlorosilane
Phosphorus oxychloride
Phosphorus pentasulfide
Phosphorus trichloride
Potassium phosphide
Sodium phosphide
Strontium phosphide
Sulfuryl chloride
Titanium tetrachloride
Trichlorosilane

Though this list is specific, it is not all inclusive and many other chemicals not listed meet the definition of an extremely hazardous chemicals and require that the requirements of this section be met.

2. Training

All personnel who will work directly with or could be directly exposed to an extremely hazardous chemical must receive chemical specific training on each individual chemical so defined. This training must meet the requirement of the Georgia Right to Know law and must include instruction on:

- A. Proper Use
- B. Proper Storage
- C. The research protocol
- D. Proper Disposal
- E. Safety precautions in addition to those normal to a chemical laboratory.

Records of this training is to be maintained by the Principal Investigator.

3. Research Protocols and Standard Operating Procedures (SOP)

The principal investigator must maintain a written protocols and/or standard operating procedures defining

- A. Personnel training,
- B. The use of the chemical,
- C. Storage of the chemical,
- D. Safety Procedures to be used when handling the chemical,
- E. Emergency Procedures,
- F. Inactivation or Waste Handling Procedures,
- G. Security procedures to ensure against misuse or theft,
- H. Emergency and/or spill procedures.

Written copies of the protocols and SOPs must be maintained in the laboratory and be freely available to all lab members.