**TOXIC MATERIALS**

**WHAT IS LD<sub>50</sub>?**  The median lethal dose is the amount of an ingested substance that kills 50% of a population. It is expressed in mg per kg of body weight. The lower the LD<sub>50</sub>, the more toxic the material. This value is determined using rats, mice or other small mammals. Occasionally, human LD<sub>50</sub>s are reported from poisoning case studies. For a quick conversion, the average graduate student weighs around 70 kg.

**HOW TOXIC IS YOUR MATERIAL?**

**TYPES OF TOXIC MATERIALS**

- **Neurotoxin**
  - Brucine
  - Strychnine
  - Phosphoryl chloride
  - Nicotine
  - Organo-phosphates

- **DNA Alkylator**
  - Aziridines
  - Mustard gases
  - Acrolein
  - Methyl vinyl ketone

- **Inhibit Cellular Respiration**
  - Cyanogens
  - Cyanides
  - 4-Aminopyridine
  - Azides
  - Thiophenol
  - Nitriles

- **Chemical Asphyxiant**
  - Phosgene
  - Sarin gas
  - Phosphorous trichloride
  - Hydrazines

- **Cardiovascular Toxin**
  - Selenides
  - 2,4-Dinitrophenoil
  - Epinephrine

Scan this QR code to learn more about storage, handling and disposal of toxic materials!