**UW Particularly Hazardous Substances Criteria**

**October 2016**

**Highly Toxic**

The Washington State Department of Labor and Industries has adopted the following criteria to identify highly toxic chemicals (Washington Administrative Code 296-839-20005).

For reference, LD50 (Lethal Dose – 50%) is a single dose of a material expected to kill 50% of a group of test animals. LC50 (Lethal Concentration – 50%) is a calculated concentration of a material in air or water, exposure to which for a specified length of time is expected to cause death of 50% of a defined experimental animal population.

a. **Dermal Route**

   The median lethal dose (LD50) for dermal route is less than or equal to 200 milligrams per kilogram (mg/kg) of body weight when administered by continuous contact for 24 hours (or less) with the bare skin of albino rabbits weighing between 2 to 3 kilograms each.

b. **Oral Route**

   For an oral route, the median lethal dose (LD50) is less than or equal to 50 mg/kg of body weight when administered orally to albino rats weighing between 200 to 300 grams each.

c. **Inhalation Route**

   The median lethal concentration (LC50) for an inhalation route is less than or equal to 200 parts per million (ppm) for gases and 2 milligrams per liter of air (mg/l) for vapors, dusts, mists or fumes where time of exposure is any time up to 4 hours when administered to albino rats weighing between 200 to 300 grams each.

This definition should be considered as the minimum “floor” for consideration as “highly toxic.” Other gases and vapors which may present an acute toxic affect and may be generated in large quantities in a laboratory setting should be included.

OR

Irreversible injury:

- Respiratory Sensitization or Skin Sensitization – Category 1
- Serious Eye Damage - Category 1