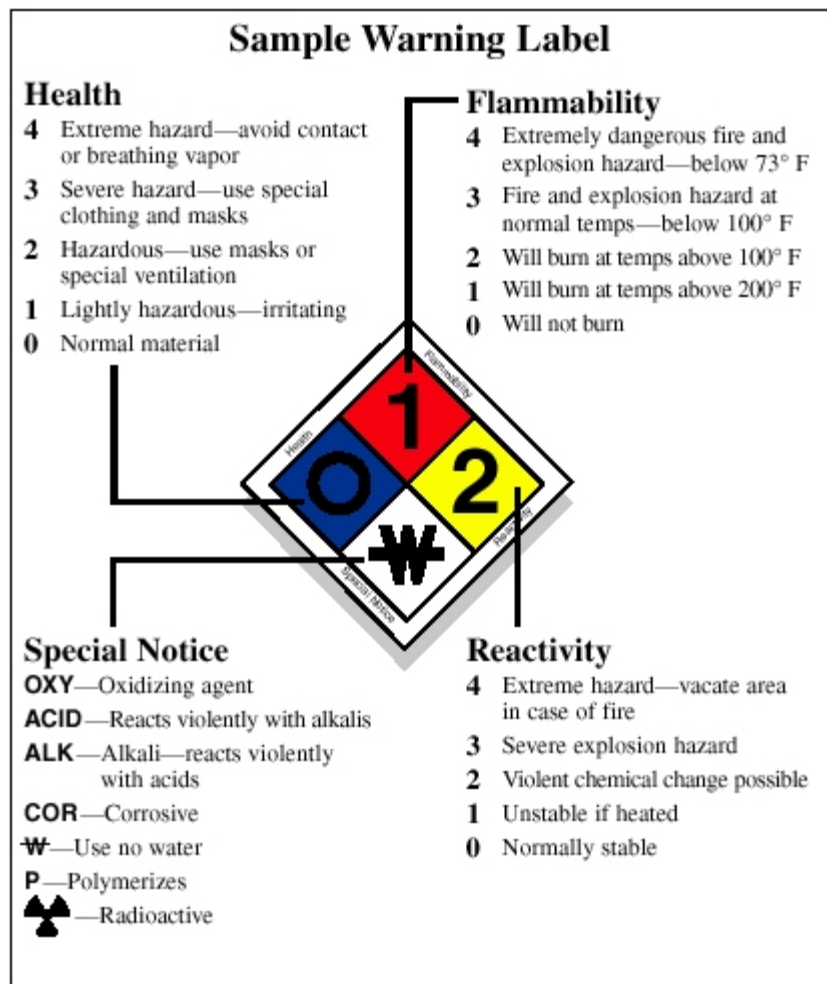


MSDS Worksheet

The following is the symbol from an MSDS. Look online and find out what color each part of the square should be and label them (or color them in, if you have crayons/colored pencils)



Part 1: MATERIAL SAFETY DATA SHEETS

1. Each institution is required by law to provide access to MSDS sheets. Why do you think this is so and what does MSDS stand for?

2. Refer to the diagram above for the next questions:

a) If a chemical has a health hazard rating of 2 or 3, where would the safest place in the lab for opening the container?

b) What would happen if a chemical with a flammability rating of 2 were heated using a Bunsen burner?

3. What should you do if you were to get this chemical in your eyes? If you were to ingest (swallow) some?

LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. The LD₅₀ is one way to measure the short-term poisoning potential (acute toxicity) of a material.

Pollutant	LD50
Lead	450 mg/kg (human)
Cadmium	890 mg/kg
Mercury	100 mg/kg
Arsenic	15 mg/kg
Sulfur	3000 mg/kg
Cadmium Sulfide	7080 mg/kg
Sodium Chloride	3000 mg/kg
Mercury (II) Chloride	210 mg/kg
Sodium Fluoride	52 mg/kg
Titanium Sulfate	16 mg/kg
Sodium Cyanide	6.4 mg/kg
Ammonium	7338 mg/kg

Which of the above substances is most toxic?

Which of the above substances is the least toxic?

If this table were referring to opossums and their average mass was 3 kg, how many of the substances would cause death to 50% or more of the animals if they each ate 60 mg of the above substances?

If this table were referring to cats and their average mass was 2 kg, how many of the substances would cause death to 50% or more of the animals if they each ate 500 mg of the above substances?

If this table were referring to cows and their average mass was 800 kg, how many of the substances would cause death to 50% or more of the animals if they each ate **80 g** of the above substances?

