

Identifying Hazardous Chemicals – Safety Data Sheet Hazard Codes and Statements

Mark Musser Environmental Health and Safety Specialist

2.6.2015

All new **Safety Data Sheets (SDS's)** now contain **Global Harmonization System (GHS)** information in the second section. **2. Hazards Identification** - this section contains a pictogram with a signal word (i.e. Caution or Danger); Hazard statement(s); Precautionary statement(s) - Please review this information before working with the product and using it for an experiment.

Here the possible Hazard Statements for **H200 Physical Hazards**; (The next page contains the H300 Health Hazards; and H400 Environmental hazards.)

Physical Hazards H200 - H290

- H200 = Unstable explosive. **[Not authorized for use]**
- H201 = Explosive, mass explosion hazard. **[Not authorized for use]**
- H202 = Explosive, severe projection hazard. **[Not authorized for use]**
- H203 = Explosive, fire, blast, or projection hazard. **[Not authorized for use]**
- H204 = Fire or projection hazard. **[Not authorized for use]**
- H205 = May mass explode in fire. **[Not authorized for use]**
- H220 = Extremely flammable gas. **[Fume Hood Use Only]**
- H221 = Flammable gas.
- H222 = Extremely flammable aerosol. **[Fume Hood Use Only]**
- H223 = Flammable aerosol.
- H224 = Extremely flammable liquid and vapor. **[Fume Hood Use Only]**
- H225 = Highly flammable liquid and vapor. **[Fume Hood Use Only]**
- H226 = Flammable liquid and vapor.
- H227 = Combustible liquid.
- H228 = Flammable solid.
- H240 = Heating may cause explosion. **[Not authorized for use]**
- H241 = Heating may cause a fire or explosion. **[Instructor Use Only In Fume Hood]**
- H242 = Heating may cause a fire. **[Fume Hood Use Only]**
- H250 = Catches fire spontaneously if exposed to air. **[Not authorized for use]**
- H251 = Self-heating may cause fire. **[Not authorized for use]**
- H252 = Self-heating in large quantities; may catch fire. **[Not authorized for use]**
- H260 = In contact with water releases flammable gases which may ignite spontaneously. **[Not authorized for use]**
- H261 = In contact with water releases flammable gases. **[Instructor Use Only In Fume Hood]**
- H270 = May cause or intensify fire; oxidizer.
- H271 = May cause fire or explosion; strong oxidizer.
- H272 = May intensify fire; oxidizer
- H280 = Contains gas under pressure; may explode if heated. **[Not authorized for use]**
- H281 = Contains refrigerated gas; may cause cryogenic burns or injury.
- H290 = May be corrosive to metals.

Here the possible Hazard Statements for **H300 Health Hazards**; and **H400 Environmental hazards**.

Health Hazards H300 - H373

H300 = Fatal if swallowed.

H301 = Toxic if swallowed.

H302 = Harmful if swallowed.

H303 = Maybe harmful if swallowed.

H304 = Maybe be fatal if swallowed and enters airways.

H305 = Maybe harmful if swallowed and enters airways.

H310 = Fatal in contact with skin. **[Not authorized for use]**

H311 = Toxic in contact with skin.

H312 = Harmful in contact with skin.

H313 = Maybe harmful in contact with skin.

H314 = Causes severe skin burns and eye damage

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H318 = Causes severe eye damage.

H319 = Causes serious eye irritation.

H320 = Causes eye irritation.

H330 = Fatal if inhaled. **[Not authorized for use]**

H331 = Toxic if inhaled. **[Fume Hood Use Only]**

H332 = Harmful if inhaled. **[Fume Hood Use Only]**

H333 = Maybe harmful if inhaled.

H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 = May cause respiratory irritation.

H336 = May cause drowsiness or dizziness.

Limit use for chemicals with the hazard codes from H340 to H373– use alternatives if possible.

H340 = May cause genetic defects.

H341 = Suspected of causing genetic defects.

H350 = May cause cancer.

H351 = Suspected of causing cancer.

H360 = May damage fertility or the unborn child.

H361 = Suspected of damaging fertility or the unborn child.

H362 = May cause harm to breast-fed children.

H370 = Causes damage to organs. **[Fume Hood Use Only]**

H371 = May cause damage to organs.

H372 = Causes damage to organs through prolonged or repeated exposure. **[Fume Hood Use Only]**

H373 = May cause damage to organs through prolonged or repeated exposure.

Environmental Hazards H400 - H413

H400 = Very toxic to aquatic life.

H401 = Toxic to aquatic life.

H402 = Harmful to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

H411 = Toxic to aquatic life with long lasting effects.

H412 = Harmful to aquatic life with long lasting effects.

H413 = May cause long lasting harmful effects to aquatic life.