

Globally Harmonized System

Chemistry 118 Lab
Fall 2017

Globally Harmonized System (GHS)

GHS is a system designed to present globally uniform (i.e. harmonized) communication on the hazards associated with chemicals.

Important Information

Pictograms

Signal Words

Hazard Statements

Precautionary Statements

Safety Data Sheets

Pictograms

Definition: Graphical representation that includes a symbol, a border, background pattern or color all of which is intended to convey specific information.

Characteristics:

Diamond Shape.

Red border, white background, black symbol



Example: Corrosive Pictogram

Signal Words

Definition: word used to indicate the relative level of severity of hazard and alert you to a potential hazard on the label

Danger (for more severe hazard categories)

Warning (for less severe hazard categories)

Hazard Statements

Definition: phrase assigned to a hazard class and category that describes the nature of the hazards of a hazardous product, including, where appropriate, the degree of hazard.

Examples of hazard statements are:

Highly flammable liquid and vapor (H225)

Toxic in contact with skin (H311)

Harmful to aquatic life (H402)

Precautionary Statements

Definition: phrases (and/or pictograms) that describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product, or improper storage or handling of a hazardous product.

Five types of precautionary statements:

General (codes P1xx) Prevention (codes P2xx)

Response (in case of spillage or exposure) (codes P3xx)

Storage (codes P4xx) Disposal (codes P5xx)



Safety Data Sheets (SDS)

SDS's provide comprehensive information of a chemical/mixture for use in a laboratory.

SDS's are primarily written for people working in industry and/or with large amounts of the chemical on a routine basis.

HOWEVER, as students working in an academic lab where hazardous materials may be used requires you to be familiar with SDS as well.

Information Included in an SDS

1. Identification
2. Hazard(s) identification
3. Composition/information on ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information.

See Example SDS