



Hazard Communication

& Safe Handling of Workplace Chemicals

Training Objectives:

- Identify components of a Hazard Communication program
- Describe the different types of Hazard Communication labels
- Locate pertinent information about chemicals on labels, including other forms of hazard communication, to ensure “right to understanding” provisions of Globally Harmonized System (GHS) requirements



**Hazard
Communication
Standard**

PA Right to Know Act OVERVIEW

- Employers are responsible for ensuring information about hazardous substances/chemicals in the workplace be made available to employees.
- Mandates employees be provided with information about the chemicals through:
 - Information on chemical labels, including universal pictograms
 - Safety Data Sheets (SDS)
 - A written Hazard Communication (HAZCOM) plan
 - Training on hazard communications (HAZCOM)



**PENNSYLVANIA
WORKER AND COMMUNITY
RIGHT TO KNOW PROGRAM**

**EMPLOYEE
WORKPLACE
NOTICE**

PUBLIC SECTOR

The Pennsylvania Worker and Community Right to Know Act requires that information about hazardous substances in the workplace and in the environment is available to public sector employees and employees of private sector workplaces not covered by the Federal Occupational Safety and Health Administration (OSHA) Hazard Communication Standard and to all persons living or working in the state. Employee rights listed below are further defined in the Worker and Community Right to know Act (P.L. 734, No. 159) and Regulations. For additional information contact the Department of Labor and Industry, Bureau of PENNSAFE, Room 155-E, Seventh and Forster Streets, Harrisburg, Pennsylvania 17120; (717) 783-2071; FAX (717) 783-5099; li-pennsafe@state.pa.us (e-mail).

Employee Workplace Notice:

Public sector employers (including state and local government agencies and public schools and public universities) and private sector employers not covered by the OSHA Hazard Communication Standard must post this notice informing employees of their rights under the law. This notice must be posted prominently in the workplace at a location where employee notices are normally posted.

Training:

Public sector employers and private sector employers not covered by the OSHA Hazard Communication Standard must provide an annual education and training program to employees exposed to hazardous substances. The training program may be presented either in written form or in training sessions.

Hazardous Substance Survey Form:

The Hazardous Substance Survey Form (HSSF) provides an inventory of the hazardous substances found in the workplace during the prior calendar year.

Work Area List:

The Work Area List names the hazardous substances used or produced in a specific work area in the workplace. Public sector employers and private sector employers not covered by OSHA Hazard Communication Standard must update a Work Area List as least annually, must provide a copy to any employee of the work area upon request, and must offer a copy to any employee assigned to that work area.

Material Safety Data Sheet:

The material Safety Data Sheet (MSDS) provides detailed information about a hazardous substance. In public sector workplaces and private sector workplaces not covered by the OSHA Hazard Communication Standard, an MSDS must be accessible in the work area where the hazardous substance it describes is used. MSDSs must be readily available to employees without the intervention or permission of management or supervisors, and any employee may obtain and examine an MSDS for any hazardous substance in the workplace. If an employee's request to obtain a copy of an MSDS is made to the employer in writing and, after five working days from the date the request is made, the employer fails to furnish the employee with an MSDS in the employer's possession or fails to provide the employee with proof of the employer's effort to obtain the requested MSDS from the manufacturer, importer, supplier or distributor and from the Department of Labor and Industry, the requesting employee may refuse to work with the substance.

Environmental Hazard Survey Form:

The Environmental Hazard Survey Form (EHSF) provides information about any environmental hazards emitted, discharged or disposed of from the workplace. All employers are required to complete an EHSF when and if requested to do so by the Department of Labor and Industry. If an EHSF has been completed by a public sector employer or a private sector employer not covered by the OSHA Hazard Communication Standard, a copy must be provided to any employee upon request.

Labeling:

All containers and parts of pipelines of hazardous and non-hazardous substances in public sector workplaces and private sector workplaces not covered by the OSHA Hazard Communication Standard must be properly labeled. Employers must ensure that each label, sign, placard or other operating instruction is prominently affixed and displayed on the container or part of a pipeline system so that employees can easily identify the contents.

Health and Exposure Records:

Public sector employers and private sector employers not covered by the OSHA Hazard Communication Standard must maintain and allow employee access to records of employee chemical exposure to the extent required by OSHA (under 29 CFR 1910.1200) or by the Mine Safety Health Administration (under 30 CFR 70.210 and 71.210).

Non-discrimination:

If a public sector employee or an employee of a private sector workplace not covered by the OSHA Hazard Communication Standard believes that he or she has been discharged, disciplined or discriminated against by an employer for exercising his or her rights granted under the Pennsylvania Worker and Community Right to Know Act, that employee has 180 days from the date of the alleged violation to file a written complaint with the Department of Labor and Industry, Bureau of PENNSAFE.



Commonwealth of Pennsylvania
Edward G. Rendell, Governor

Department of Labor and Industry
Stephen M. Schmerin, Secretary

PA Right to Know
Employee Workplace
Notice
Posted in UCP Locations

Hazard Communication Training Requirements

Train employees on hazardous chemicals in their work area:

Before initial assignment
When new hazards are introduced
Nonroutine tasks



Include in training:

Methods to determine presence/release of chemicals in work areas
Hazards of chemicals
Appropriate protective measures
Where and how to obtain additional information

Seven Major Elements in the GHS-aligned Hazard Communication Standard



Source: OSHA

Safety Data Sheets (SDS) & SDS Binder

- Must have SDS for each chemical and staff trained on SDS format and use
- New chemical SDS must be added to SDS Binder and staff trained on safe handling PRIOR to use (SDS usually available on internet)
- SDS Binder must be readily accessible to employees
- Most non-office locations require chemicals to remain locked when not in immediate use (unless otherwise specified)



Safety Data Sheet (SDS)

16 section format:

Section 1: Identification

Section 2: Hazard(s) identification

Section 3: Composition/information on ingredients

Section 4: First-aid measures

Section 5: Fire-fighting measures

Section 6: Accidental release measures

Section 7: Handling and storage

Section 8: Exposure control/personal protection



Safety Data Sheet (SDS) 16 section format:

Section 9: Physical and chemical properties

Section 10: Stability and reactivity

Section 11: Toxicological information

Section 12: Ecological information

Section 13: Disposal considerations

Section 14: Transport information

Section 15: Regulatory information

Section 16: Other information



SDS Format Example

SAFETY DATA SHEET

Hydrogen Sulfide

Section 1. Identification

GHS product identifier : Hydrogen Sulfide
Chemical name : hydrogen sulphide
Other means of identification : Hydrogen sulfide; Hydrogen sulfide (H₂S); Sulfuretted hydrogen; Sewer gas; Hydrosulfuric acid; dihydrogen sulfide
Product use : Synthetic/Analytical chemistry.
Synonym : Hydrogen sulfide; Hydrogen sulfide (H₂S); Sulfuretted hydrogen; Sewer gas; Hydrosulfuric acid; dihydrogen sulfide
SDS # : 001029
Supplier's details :

Emergency telephone number (with hours of operation) :

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE GASES - Category 1
GASES UNDER PRESSURE - Liquefied gas
ACUTE TOXICITY (inhalation) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
AQUATIC HAZARD (ACUTE) - Category 1

GHS label elements
Hazard pictograms :



Signal word
Hazard statements



: Danger
: Extremely flammable gas.
May form explosive mixtures with air.
Contains gas under pressure; may explode if heated.
May cause frostbite.
Fatal if inhaled.
Extended exposure to gas reduces the ability to smell sulfides.
May cause respiratory irritation.
Very toxic to aquatic life.

Precautionary statements

Reading Chemical Labels

Information required on the GHS label:

1. Product identifier
2. Pictograms
3. Signal (hazard) word (danger or warning)
4. Hazard statement
5. Precautionary statement
6. Supplier information

2 	1 Sulfuric Acid	2 
	3 Danger! May be harmful if swallowed. Causes severe skin burns and eye damage. 4 Fatal if inhaled. Harmful to aquatic life.	
	Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.	
5	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.	
	In case of fire Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.	
	See Material Safety Data Sheet for further details regarding safe use of this product.	
6	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA Telephone : +18003255832	
1 Product Identifier	4 Hazard Statements	
2 Pictograms	5 Precautionary Statements	
3 Signal word, "Danger!"	6 Supplier Information	

Hazard Communication Standard GHS Pictograms (AKA Hazard Symbols)



Health Hazard

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity



Flame

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides



Exclamation Mark

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)



Gas Cylinder

- Gases Under Pressure



Corrosion

- Skin Corrosion / Burns
- Eye Damage
- Corrosive to Metals



Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides



Flame Over Circle

- Oxidizers



Environment

- Aquatic Toxicity



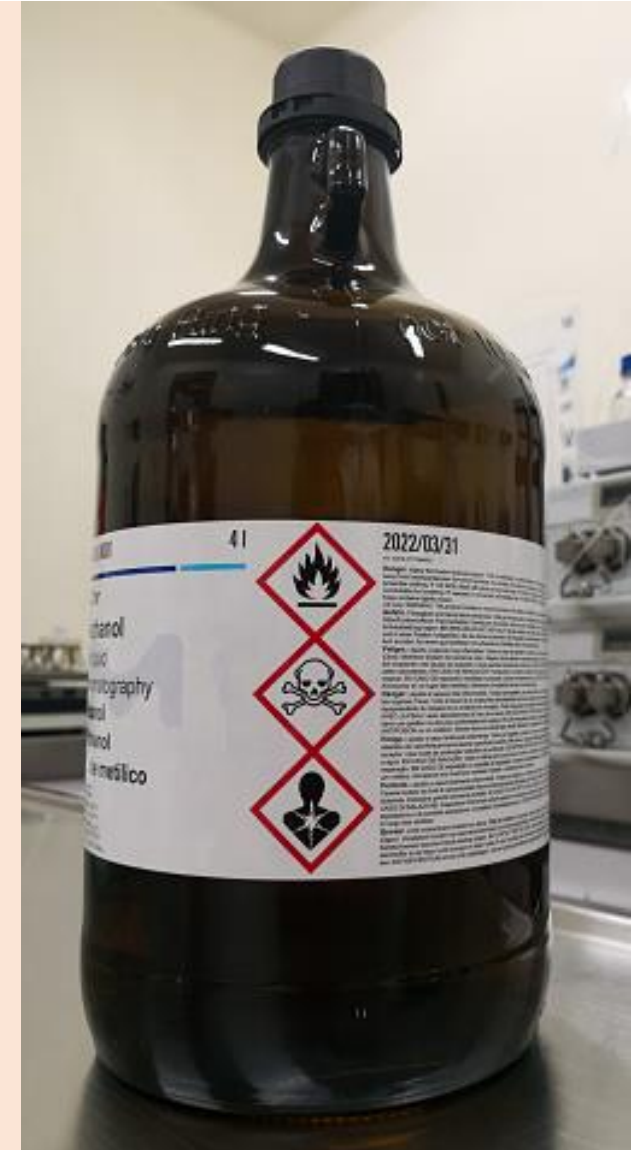
Skull and Crossbones

- Acute Toxicity (fatal or toxic)



Locating Labels & Secondary Containers

- All containers of hazardous materials must be labeled
- Secondary containers must be labeled correctly
- Do not mix different chemicals together
- Label provides immediate warning, snapshot of hazards and protective information



What to do if you are exposed...

- Review the SDS to determine Treatment Steps/First Aid Measures
- Obtain treatment according to First Aid Measures in SDS
- Take SDS to the Physician
- Report incident to Supervisor and file Workers Comp claim

Page 1
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SAFETY DATA SHEET
Solvent Wipe #120

1. Product and Company Identification



Product Code: SOLVENT #120
Product Name: Solvent Wipe #120
Reference #: AVS 1241014
Company Name: Standardized Sanitation Systems Inc
141 Middlesex Turnpike
Burlington, MA 01803

Emergency Contact Information: Emergency (404)422-2071
(617)273-2020

Product Category: Solvents

2. Hazards Identification

Flammable Liquids, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Target Organ Systemic Toxicity (Single exposure), Category 3

  **Danger** **Warning**

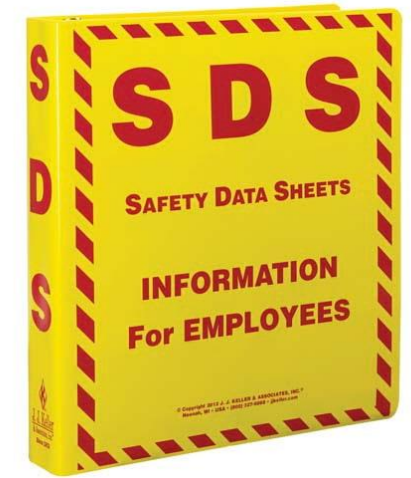
GHS Hazard Phrases:
H225: Highly flammable liquid and vapor
H319: Causes serious eye irritation
H336: May cause respiratory irritation

GHS Precaution Phrases:
P233: Keep container tightly closed
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280: Wear protective gloves/protective clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.
P240: Ground/bond container and receiving equipment - if the explosive is electrostatically sensitive
P241: Use explosion-proof electrical/ventilating/lighting/... equipment... after specified by the manufacturer/supplier or the competent authority - if dust clouds can occur
P243: Take precautionary measures against static discharge
P242: Use only non-sparking tools
P254: Wash hands thoroughly after handling
P271: Use only outdoors or in a well-ventilated area
P261: Avoid breathing dust/fume/gas/mist/vapors/spray

GHS Response Phrases:
P370+378: In case of fire, use... for extinction... appropriate media specified by the manufacturer/supplier or the competent authority - if water increases risk.
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313: IF EYE IRRITATION PERSISTS, get medical advice/attention.
P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

GHS Storage and Disposal Phrases:
P403+235: Store in cool/well-ventilated place.
P501: Dispose of contents/container to... (in accordance with local/regional/national/international regulation).
P405: Store locked up.
P403+233: Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.

MRS MSDS, (c) A.V. Systems, Inc. GHS Format



Thank you for your participation!

