HAZARD COMMUNICATION PROGRAM

GLASTONBURY PUBLIC SCHOOLS

SAFETY COMPLIANCE OFFICER
Kenneth R. Roy, Ph.D., Director of Environmental Health & Safety

(Edition-16)

GLASTONBURY BOARD OF EDUCATION

Susan Karp, Chairperson
Jeremy Grieveson, Vice Chairperson
Lisa M. Furbush, Ph.D., Secretary
Rosemary Coggeshall
Douglas C. Foyle, Ph.D.
Carolyn Treiss
Pandora D. Wohler
James R. Zeller

CENTRAL OFFICE ADMINISTRATION

Alan B. Bookman, Ph.D., Superintendent
Rosemary Tralli, Ph.D., Assistant Superintendent
Matthew H. Dunbar, Assistant Superintendent
Sharon E. Smith, J.D., Business Manager

GLASTONBURY BOARD OF EDUCATION SAFETY POLICY

Safer Working Conditions

Every employee is entitled to work in a safer, healthier environment. Every reasonable effort will be made to provide such an environment, including safe equipment, proper materials and insistence upon safer methods and practices at all times. Safety rules and regulations have been developed for the protection of everyone. These rules and regulations are directive and applicable to all.

It is a basic responsibility of all employees to report safety concerns in a timely way to their supervisors or safety compliance officer. Employees must observe the rules of conduct and safety, and properly use safety equipment provided.

(Personnel - Certified/Classified Policy 4112.9
Revised 28 November 2011)

Glastonbury Public Schools

Hazard Communication Program

I. BACKGROUND

The plan is developed in accordance with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standards Act 29 CFR 1910.1200.

The New Globally Harmonized System (GHS): Changes to the Hazard Communication Standard

On March 20, 2012, the Occupational Health & Safety Administration (OSHA) revised the Hazard Communication Standard to align the regulation with the provisions of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). These changes will impact all users of hazardous chemicals at the Glastonbury Public Schools. The Hazard Communication Standard has been in place since 1983 and was designed to ensure manufacturers and importers evaluate the chemicals they produce and that this information concerning the hazards are transmitted to employers and employees through labels and Material Safety Data Sheets (MSDS). The standard also addresses chemical inventories, written plans and training. Over the next three years, this plan will evolve to meet the schedule for total implementation of the GHS system into the Hazard Communication Standard.

The following major changes are being made to the Hazard Communication Standard:

1. ***Safety Data Sheets (SDS):***

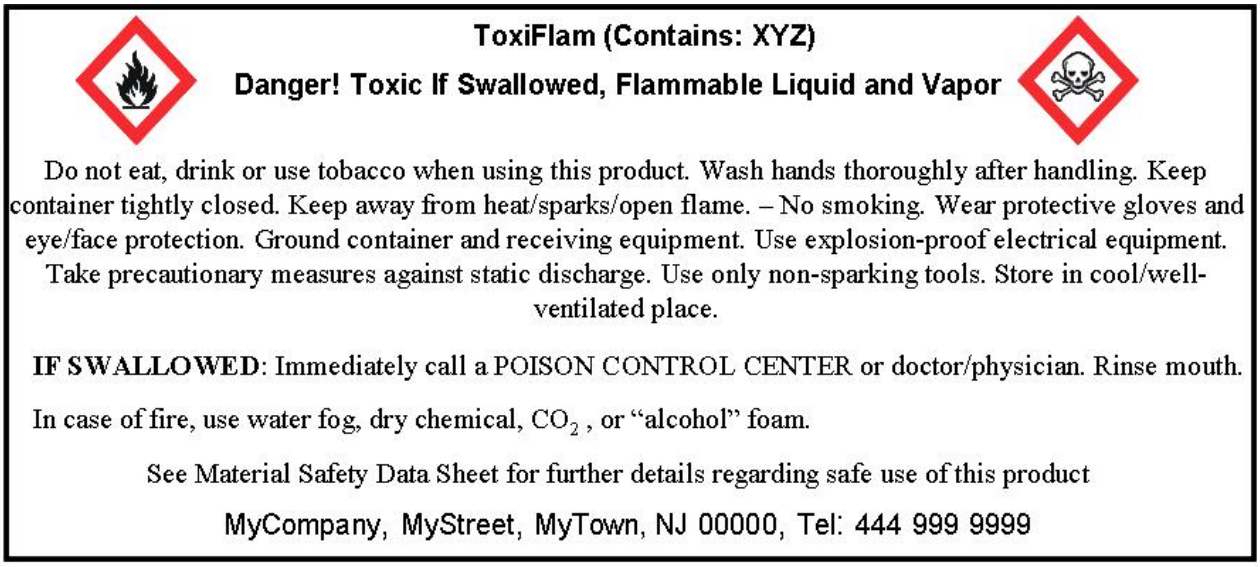
The Material Safety Data Sheet (MSDS) will be replaced with a Safety Data Sheet (SDS) which will have 16 sections in an established format.

2. ***Hazard classification:***

The physical and health hazards of each chemical (and chemical mixtures) have to be identified by the manufacturer using specific criteria for classification. There are criteria established for 16 physical hazards and 10 health hazards.

3. ***Labels:***

Chemical manufacturers are required to provide a label that includes the chemical name, a harmonized signal word indicating the relative degree of severity of a hazard (such as “danger” and “warning”), pictogram and hazard statement for each hazard class and category. Precautionary statements must also be used. The manufacturer name, address and phone number must be included and all this must be in a consistent format.



Example of a New Chemical Label

Information and Training:

To facilitate understanding of the new system, the new standard requires that workers be trained by December 1, 2013 on the new label elements and safety data sheet format, in addition to the current training requirements.

Implementation Timeline:

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and SDS format.	Employers
June 1, 2015* December 1, 2015	Comply with all modified provisions of this final rule, except: Distributors may ship products labeled by manufacturers under the old system until December 1, 2015.	Chemical manufacturers, importers, distributors and employers
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.	Employers
Transition Period	Comply with either 29 CFR 1910.1200 (this final standard), or the current standard, or both.	All chemical manufacturers, importers, distributors and employers

II. OBJECTIVE

The Hazard Communication Program (HCP) is a written plan developed to establish procedures for safer work practices. These work practices will protect employees from health hazards associated with the use of hazardous chemicals in the work place. The program applies to all hazardous chemicals which are known to be present on the premises of all Glastonbury Public School System facilities. Hazardous chemicals include chemicals in all physical forms; liquids, solids, gases, vapors, fumes, and mists; whether they are "contained" or not. This written Hazard Communication Program will be made available to all employees electronically or in hard copy.

III. DEFINITIONS

Aerosols means any non-refillable receptacles made of metal, glass or plastics and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state or in a gaseous state. Aerosol includes aerosol dispensers.

Alloy means a metallic material, homogeneous the naked eye, consisting of two or more elements so combined that they cannot be readily separated by mechanical means. Alloys are considered to be mixtures for the purpose of classification under the GHS.

Aspiration means the entry of a liquid or solid chemical product into the trachea and lower respiratory system directly through the oral or nasal cavity, or indirectly from vomiting;

ASTM means the "American Society of Testing and Materials".

BCF means "bioconcentration factor".

BOD/COD means "biochemical oxygen demand/chemical oxygen demand".

CA means "competent authority".

Carcinogen means a chemical substance or a mixture of chemical substances which induce cancer or increase its incidence.

CAS means "Chemical Abstract Service".

CBI means "confidential business information".

Chemical identity means a name that will uniquely identify a chemical. This can be a name that is in accordance with the nomenclature systems of the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS), or a technical name.

Competent authority means any national body(ies) or authority(ies) designated or otherwise recognized as such in connection with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Compressed gas means a gas which when packaged under pressure is entirely gaseous at -50°C; including all gases with a critical temperature £ -50°C.

Contact sensitizer means a substance that will induce an allergic response following skin contact. The definition for "contact sensitizer" is equivalent to "skin sensitizer".

Corrosive to metal means a substance or a mixture which by chemical action will materially damage, or even destroy, metals.

Criteria means the technical definition for the physical, health and environmental hazards;

Critical temperature means the temperature above which a pure gas cannot be liquefied, regardless of the degree of compression.

Dermal Corrosion: see *skin corrosion*;

Dermal irritation: see *skin irritation*.

Dissolved gas means a gas which when packaged under pressure is dissolved in a liquid phase solvent.

EC_{50} means the effective concentration of a substance that causes 50% of the maximum response.

EC Number or (ECN°) is a reference number used by the European Communities to identify dangerous substances, in particular those registered under EINECS.

ECOSOC means the "Economic and Social Council of the United Nations".

EINECS means "European Inventory of Existing Commercial Chemical Substances".

End Point means physical, health and environmental hazards;

ErC_{50}means EC_{50} in terms of reduction of growth rate.

EU means "European Union".

Explosive article means an article containing one or more explosive substances.

Explosive substance means a solid or liquid substance (or mixture of substances) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic substances are included even when they do not emit gases.

Eye irritation means the production of changes in the eye following the application of test substance to the front surface of the eye, which are fully reversible within 21 days of application.

Flammable gas means a gas having a flammable range with air at 20°C and a standard pressure of101.3kPa.

Flammable liquid means a liquid having a flash point of not more than 93°C.

Flammable solid means a solid which is readily combustible, or may cause or contribute to fire through friction.

Flash point means the lowest temperature (corrected to a standard pressure of 101.3 kPa) at which the application of an ignition source causes the vapors of a liquid to ignite under specified test conditions.

Gas means a substance which (i) at 50 °C has a vapor pressure greater than 300 kPa; or (ii) is completely gaseous at 20 °C at a standard pressure of 101.3 kPa.

GESAMP means "the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection of IMO/FAO/UNESCO/WMO/WHO/IAEA/UN/UNEP."

GHS means "the Globally Harmonized System of Classification and # Labeling of Chemicals".

Hazard category means the division of criteria within each hazard class, e.g., oral acute toxicity includes five hazard categories and flammable liquids includes four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard class means the nature of the physical, health or environmental hazard, e.g., flammable solid carcinogen, oral acute toxicity.

Hazard statement means a statement 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;

IARC means the "International Agency for the Research on Cancer".

ILO means the "International Labor Organization".

IMO means the "International Maritime Organization".

Initial boiling point means the temperature of a liquid at which its vapor pressure is equal to the standard pressure (101.3kPa), i.e., the first gas bubble appears.

IOMC means the "Inter-organization Program on the Sound Management of Chemicals".

IPCS means the "International Program on Chemical Safety".

ISO means International Standards Organization.

IUPAC means the "International Union of Pure and Applied Chemistry".

Label means an appropriate group of written, printed or graphic information elements concerning a hazardous product, selected as relevant to the target sector(s), that is affixed to, printed on, or attached to the immediate container of a hazardous product, or to the outside packaging of a hazardous product.

Label element means one type of information that has been harmonized for use in a label, e.g., pictogram, signal word.

***LC_{50}* (50% lethal concentration)** means the concentration of a chemical in air or of a chemical in water which causes the death of 50% (one-half) of a group of test animals.

LD_{50} means the amount of a chemical, given all at once, which causes the death of 50% (one half) of a group of test animals.

$L(E)C_{50}$ means LC_{50} or EC_{50}.

Liquefied gas means a gas which when packaged under pressure, is partially liquid at temperatures above-50°C. A distinction is made between.

(i) High pressure liquefied gas: a gas with a critical temperature between -50°C and+65°C; and
(ii) Low pressure liquefied gas: a gas with a critical temperature above +65°C.

Liquid means a substance or mixture which at 50°C has a vapor pressure of not more than 300kPa (3bar), which is not completely gaseous at 20 °C and at a standard pressure of 101.3kPa, and which has a melting point or initial melting point of 20°C or less at a standard pressure of 101.3 kPa. A viscous substance or mixture for which a specific melting point cannot be determined shall be subjected to the ASTM D 4359-90 test; or to the test for determining fluidity (penetrometer test) prescribed in section 2.3.4 of Annex A of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

MARPOL means the "International Convention for the Prevention of Pollution from Ships".

Mixture means a mixture or a solution composed of two or more substances in which they do not react.

MSDS means "Material Safety Data Sheet" and in this document is used interchangeably with Safety Data Sheet (SDS).

Mutagen means an agent giving rise to an increased occurrence of mutations in populations of cells and /or organisms.

Mutation means a permanent change in the amount or structure of the genetic material in a cell;

NGO means "non-governmental organization".

NOEC means the "no observed effect concentration".

OECD means "The Organization for Economic Cooperation and Development".

Organic peroxide means a liquid or solid organic substance which contains the bivalent -0-0- structure and may be considered a derivative of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals. The term also includes organic peroxide formulation (mixtures).

Oxidizing gas means any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.

Oxidizing liquid means a liquid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material.

Oxidizing solid means a solid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material.

QSAR means "quantitative structure-activity relationships".

Pictogram means a graphical composition that may include a symbol plus other graphic elements, such as a border, background pattern or color that is intended to convey specific information.

Precautionary statement means a phrase (and/or pictogram) that describes 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. ***Product identifier*** means the name or number used for a hazardous product on a label or in the SDS. It provides a unique means by which the product user can identify the substance or mixture within the particular use setting (e.g. transport, consumer or workplace).

Pyrophoric liquid means a liquid which, even in small quantities, is liable to ignite within five minutes after coming into contact with air.

Pyrophoric solid means a solid which, even in small quantities, is liable to ignite within five minutes after coming into contact with air.

Pyrotechnic article means an article containing one or more pyrotechnic substances;

Pyrotechnic substance means a substance or mixture of substances designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative, self-sustaining exothermic (heat-related) chemical reactions.

Readily combustible solid means powdered, granular, or pasty substance or mixture which is dangerous if it can be easily ignited by brief contact with an ignition source, such as a burning match, and if the flame spreads rapidly.

Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria means the latest revised edition of the United Nations publication bearing this title, and any published amendment thereto.

Recommendations on the Transport of Dangerous Goods, Model Regulations means the latest revised edition of the United Nations publication bearing this title, and any published amendment thereto.

Refrigerated liquefied gas means a gas which when packaged is made partially liquid because of its low temperature.

Respiratory sensitizer means a substance that induces hypersensitivity of the airways following inhalation of the substance.

RID means The Regulations concerning the International Carriage of Dangerous Goods by Rail [Annex 1 to Appendix B (Uniform Rules concerning the Contract for International Carriage of Goods by Rail) (CIM) of COTIF (Convention concerning international carriage by rail)], as amended.

SAR means "Structure Activity Relationship".

SDS means "Safety Data Sheet" and in this document is used interchangeably with Material Safety Data Sheet (MSDS).

Self-Accelerating Decomposition Temperature (SADT) means the lowest temperature at which self-accelerating decomposition may occur with substance as packaged.

Self-heating substance means a solid or liquid substance, other than a pyrophoric substance, which, by reaction with air and without energy supply, is liable to self-heat; this substance differs from a pyrophoric substance in that it will ignite only when in large amounts (kilograms) and after long periods of time (hours or days).

Self-reactive substance means a thermally unstable liquid or solid substance liable to undergo a strongly exothermic decomposition even without participation of oxygen (air). This definition excludes substances or mixtures classified under the GHS as explosive, organic peroxides or as oxidizing.

Serious eye damage means the production of tissue damage in the eye, or serious physical decay of vision, following application of a test substance to the front surface of the eye, which is not fully reversible within 21 days of application.

Signal word means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The GHS uses 'Danger' and 'Warning' as signal words.

Skin corrosion means the production of irreversible damage to the skin following the application of a test substance for up to 4 hours.

Skin irritation means the production of reversible damage to the skin following the application of a test substance for up to 4 hours.

Skin sensitizer means a substance that will induce an allergic response following skin contact. The definition for "skin sensitizer" is equivalent to "contact sensitizer".

Solid means a substance or mixture which does not meet the definitions of a liquid or gas.

SPR means "Structure Property Relationship".

Substance means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any

impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Substance which, in contact with water, emits flammable gases means a solid or liquid substance or mixture which, by interaction with water, is liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

Supplemental label element means any additional non-harmonized type of information supplied on the container of a hazardous product that is not required or specified under the GHS. In some cases this information may be required by other competent authorities or it may be additional information provided at the discretion of the manufacturer/distributor.

Symbol means a graphical element intended to succinctly convey information.

Technical name means a name that is generally used in commerce, regulations and codes to identify a substance or mixture, other than the IUPAC or CAS name, and that is recognized by the scientific community. Examples of technical names include those used for complex mixtures (e.g., petroleum fractions or natural products), pesticides (e.g., ISO or ANSI systems), dyestuffs (Color Index system) and minerals.

UNCED means the "United Nations Conference on Environment and Development".

UNCETDG/GHS means the "United Nations Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labeling of Chemicals".

UNITAR means the "United Nations Institute for Training and Research";

UNSCEGHS means the "United Nations Sub-Committee of Experts on the Globally Harmonized System of Classification and Labeling of Chemicals".

UNSCETDG means the "United Nations Sub-Committee of Experts on the Transport of Dangerous Goods".

IV. RESPONSIBILITIES.

A. Superintendent of Schools

1. Support and ensure enforcement of the Hazard Communication Program**.**
2. Appoint and support Safety Compliance Officer

B**.** Safety Compliance Officer

1. Administer the Hazard Communication program.
2. Coordinate the education and training of employees.
3. Evaluate the adequacy of personal protective equipment and, as necessary, determine appropriate changes.
4. Ensure that medical consultative services are available to those employees requesting or needing such services.

5. Annually review the HCP and update it as required.
6. Maintain appropriate records documenting compliance with the HCP.
7. Maintain a list of all hazardous chemicals used in the school system, and update the list as necessary.
8. Periodically conduct site inspections to ensure work areas are in compliance with this policy.
9. Know the current legal requirements for hazardous chemicals.

C. Department Directors/Department Heads and/or Building Supervisors/Administrators:

1. Assure all MSDS (material safety data sheets) or SDS (safety data sheets) are kept up to date and in their proper locations for direct access by employees.
2. When new materials arrive from distributors, send accompanying MSDS's or SDS's to safety compliance office for logging and distribution.
3. If an MSDS or SDS has blank sections, insufficient information, or is not received with new material, contact the distributor. If unavailable, contact the Safety Compliance Officer.
4. Provide information and training to teachers, students, and other employees for proper use of equipment and hazardous materials, and MSDS or SDS chemical information.

D. Employees (Teachers, Secretaries, Custodians, etc.):

1. Use equipment properly and in a safer manner. If proper use is not known, request information and training from the Department and/or Building Supervisors/Administrators.
2. Conduct on-going safety inspections of the work area.
3. Immediately report any equipment not functioning properly and discontinue use until it is fully restored to proper working condition.
4. Follow all general rules and standard operating procedures.
5. Follow Hazard Communication Program guidelines for use, labeling, and storage of hazardous materials.
6. Use appropriate personal protective equipment.
7. Immediately report all injuries and illnesses to department and/or Building Supervisor/Administrator. Fill out and submit the appropriate forms.
8. Conduct an annual inventory of all hazardous chemicals in the classrooms and storage areas.
9. Conduct initial and on-going training for students working with hazardous materials.
10. Know where the MSDS's and/or SDS's are located for your department and understand how to read them.
11. Provide adequate information about hazardous materials in the work area for substitute workers.
12. Report unsafe conditions to Safety Compliance Officer/Supervisor (Form #4).

E. Medical Staff:

1. Be familiar with the materials used in the work areas and any associated health hazards. **Call Poison Control Center if uncertain (1-800-343-2722)**
2. Conduct medical consultations as required and prepare the appropriate reports.
3. Maintain documentation of all accidents or incidents involving employees.
4. Follow the guidelines in (section III B), Medical Consultation and Medical Examinations.

F. Administrative Staff:

1. Understand the Hazard Communication Program and be committed to maintaining a safer working environment for all employees.
2. Encourage employees to ask questions and have the ability to answer the question or refer them to a reliable source.
3. The administrative staff of each building will be responsible for maintaining their own MSDS or SDS books OR provide direct access to electronic formats which will include every hazardous material on the premises of their building.

V. COMPONENTS OF THE HAZARD COMMUNICATION PROGRAM.

A. STANDARD OPERATING PROCEDURES.

All employees are required to abide by the standard operating procedures described below.

1. General Rules.

a. Familiarize yourself with potential hazards associated with work procedures before handling hazardous materials.
b. Review MSDS's or SDS's before any work begins so proper precautions can be taken.
c. Use the proper personal protective equipment for the task.
d. Know the location of emergency equipment in your area and be familiar with emergency procedures.
e. Use equipment only for its designated purpose.
f. Be sure all hazardous chemicals are labeled clearly with the chemical identity, appropriate hazard warnings and the name and address of the manufacturer (section E).
g. Avoid working alone in any area when handling hazardous materials.
h. Know the location of the nearest exit at all times.
i. Avoid practical jokes or other behavior which might confuse, startle or distract another staff member or student.

2. Housekeeping.

It is the responsibility of each employee to maintain a safe, clean and orderly work area:

a. Assure that all floors and working surfaces are regularly cleaned.
b. Do not block aisles, doorways or access to exits, emergency equipment and controls.
c. Keep work area clean and uncluttered.
d. Clean up area at completion of activity period and/or end of day.
e. Clean up spilled chemicals immediately, using appropriate procedures (section F4).
f. Dispose of waste materials properly.
g. Keep storage areas free from clutter.
h. All materials should have a permanent, appropriate and secured storage place, and should be kept there when not in use.

3. Personal Hygiene.

   a. Appropriate eye protection is to be worn by all persons, including students and visitors, when necessary, in concert with Section 10-214a of the *Connecticut General Statutes*.
   b. Avoid use of contact lenses when using extremely hazardous chemicals.
   c. Do not taste or smell any hazardous chemicals.
   d. Do not eat, drink, smoke, or apply any cosmetics in the work areas or storage areas.
   e. Wash hands with water/soap or detergent before consuming food after performing activities involving hazardous chemicals.
   f. Loose, skimpy or torn clothing and unrestrained hair should not be worn when handling hazardous chemicals.
   g. Do not use solvents on the skin.

4. Storage.

   a. Store flammable materials in approved fire cabinets.
   b. Materials other than combustibles/flammables should never be stored in the cabinet.
   c. Materials should be stored in their original labeled containers.
   d. New containers into which materials have been transferred, should be properly labeled, (section E).
   e. Transfer solvents into labeled safety cans only. The use of glass bottles is not permitted.
   f. Obsolete items should be removed from the work area and discarded properly (see MSDS or SDS).

5. Ventilation.

   Ventilation is the key to solving most of the serious health hazards in the work area. Good ventilation can be achieved by following these rules.

   a. Direct air flow away from breathing zones of people who work in the area.
   b. Exhaust contaminated air from the work space.
   c. The source of contaminates should be moved as close as possible to an exhaust opening.
   d. Avoid cross drafts, (pulling the contaminated air across the breathing zones of people).
   e. Supply make-up air to replace the air exhausted by the ventilation system.
   f. Discharge the contaminated air away from openings that draw air into the work area.
   g. Air quality, including noise, that has proven to be hazardous, as the result of an inspection, should be reported to the department and/or Building Supervisor/Administrator or Safety Compliance Officer.
   h. Avoid polluting the community.

B. MEDICAL CONSULTATIONS AND MEDICAL EXAMINATIONS.

Medical consultations with a qualified occupational health professional will be made available through the school nurse. This may include follow-up examinations, if deemed necessary by the examining physician, in the following circumstances:

1. When an employee develops signs and/or symptoms associated with hazardous chemical exposure.

2. When monitoring, routine or otherwise, suggests that there could have been an exposure above the action level, or, in the absence of an action level, the PEL of a regulated substance.
3. When an event occurs, such as a leak or spill which will result in the likelihood of hazardous chemical exposure.

The physician will be provided with the following information when an employee's condition suggests that there has been an injury or illness due to hazardous chemical exposure:

1. The identity of the hazardous chemical or chemicals to which the employee may have been exposed.
2. The exposure conditions.
3. The signs and symptoms of exposure the victim is experiencing, if any.
4. A description of the work procedure and any exposure monitoring that has been conducted.

The physician shall issue a written opinion to the employee, department and/or Building Supervisor/Administrator, and Safety Compliance Officers. These written statements and records need not reveal specific findings that are not related to an occupational exposure. All memos, notes, and reports related to a complaint of actual or possible exposure to hazardous chemicals are to be maintained as part of the report. Employees shall be notified of the results of any medical consultation or examination with regard to a medical condition that exists or might exist as a result of overexposure to a hazardous chemical. The physicians report must contain the following:

1. Recommendations for follow-up, if determined to be required.
2. A record of the results of the consultation and, if applicable, of the examination and any tests that were conducted.
3. Conclusions concerning any other medical condition noted that could put the employee at increased risk.
4. A statement that the employee has been informed, both of the results of the consultation or examination, and, of any medical condition that may require further examination or treatment.

C. RECORD KEEPING.

The following are to be completed as appropriate and will be maintained in the Office of the Safety Compliance Officer or other designated location.

1. All training records.
2. All monitoring records.
3. All accident or incident reports.
4. Any disciplinary actions.
5. Engineering control records.
6. Disposal records.
7. Hazard communication inspection checklist

D. PERSONAL PROTECTIVE EQUIPMENT.

1. Air Contaminates.

When other control methods do not completely eliminate the hazard, and no other practical means exist for effectively controlling it, respirators may be necessary.* Respirators must be NIOSH approved, properly fitted and maintained, to be effective. Respirators should be used only under the following conditions:

a. To reduce exposures while other controls are being implemented.
b. To supplement other control measures.
c. To provide protection during activities such as maintenance and repairs when other controls are not feasible.
d. To provide protection during emergencies.

Under no circumstances are employees to wear respirators without GPS training and Certification. Respirator use is limited to voluntary use of particulate respirators or "dust" masks.

*See Respiratory Protection Program for specifics.

2. Skin Irritants.

Gloves and special clothing can be effectively used to avoid or minimize exposure to skin irritants. When selecting gloves, aprons, boots, and sleeves, special attention should be given to how the irritant reacts with the piece of protective equipment. Equipment can deteriorate if used for an extensive time with a strong chemical.

E. LABELS AND OTHER FORMS OF WARNING.

There are seven basic methods of identifying hazardous chemicals.

They are:

1. Occupancy and location
2. Container shapes.
3. Markings and colors.
4. Placards and labels.
5. Shipping papers/Material Safety Data Sheets (MSDS's).
6. Monitoring and detection equipment.
7. Senses

The objective, when dealing with hazardous chemicals, is to learn as much as possible from these seven methods. Keep in mind that these seven methods are listed in order, from the lowest risk to the highest risk.

Hazardous chemicals come in many sizes and types of packaging. Concentrating on non-bulk packaging and containers (55 gallon drums, cylinders, unmarked boxes), they will commonly have markings and labels that will display useful information for identification and hazard assessment. Examples of these markings and labels can be:

Toxicity signal words
Statements of practical treatment
Physical or chemical hazard statement
Product name
Ingredient statement
Environmental information
Hazard Rating System (appendix 1)
Four digit identification numbers

Much information can be obtained from these simple markings and labels. Other materials that can assist in the identification of hazardous chemicals are shipping papers, MSDS or SDS and, possibly, a DOT Guide Book.

Department and/or building supervisors are responsible and will oversee that all hazardous chemicals in their department are properly labeled. Labels should list at least the chemical identity, appropriate hazard warnings and the name and address of the manufacturer, importer, or other responsible party. Employees will check on a continuous basis to ensure that all containers in their work areas are labeled and that labels are up to date. The most important information on a label is a single word indicating how hazardous the chemical is (the hazard warning):

"Danger" means it is the most hazardous kind of chemical.
"Warning" is somewhat less hazardous.
"Caution" is the least hazardous.

Even chemicals labeled "Caution" can be harmful to one's health if he or she does not follow proper precautions.

The following requirements should be followed when labeling hazardous materials:

1. Always read the label and the MSDS or SDS before beginning an activity which requires the use of a potentially hazardous chemical.
2. Small quantities of hazardous materials transferred out of their labeled container for immediate use do not have to be labeled.
3. No unmarked containers of any size are to be left in the work area unattended.
4. If a label is missing or torn, immediately contact the department and/or building supervisor, and/or the distributor to identify the chemical and label it appropriately.
5. New containers into which materials have been transferred should be properly labeled with:
   a. The chemical identity
   b. Appropriate hazard warnings
   c. The name and address of the manufacturer

Hazard Communication Standard Labels Updated Requirements by 1 June 2015:

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown below. Supplemental information can also be provided on the label as needed.

For more information: www.osha.gov

SAMPLE LABEL

PRODUCT IDENTIFIER

CODE _____
Product Name _____

SUPPLIER IDENTIFICATION

Company Name_____
Street Address _____
City _____ State _____
Postal Code _____ Country _____
Emergency Phone Number _____

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.
Keep away from heat/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measure against static discharge.
Ground, bond container and receiving equipment.
Do not breathe vapors.
Wear Protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

HAZARD PICTOGRAMS

SIGNAL WORD
Danger

HAZARD STATEMENT

Highly flammable liquid and vapor.
May cause liver and kidney damage.

SUPPLEMENTAL INFORMATION

Directions for use

Fill weight: Lot Number:
Gross weight: Fill Date:
Expiration Date:

Hazard Communication Standard Pictogram

As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

HCS Pictograms and Hazards

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 (Non-Mandatory)**  ▪ **Aquatic Toxicity**	**Skull and Crossbones**  ▪ **Acute Toxicity (fatal or toxic)**

Signal Words
The signal word indicates the relative degree of severity a hazard. The signal words used in the GHS are

"Danger" for the more severe hazards, and
"Warning" for the less severe hazards.

Signal words are standardized and assigned to the hazard categories within endpoints. Some lower level hazard categories do not use signal words. Only one signal word corresponding to the class of the most severe hazard should be used on a label.

Figure 4.10

Transport "Pictograms"		
		
Flammable Liquid Flammable Gas Flammable Aerosol	**Flammable solid Self-Reactive Substances**	**Pyrophorics (Spontaneously Combustible) Self-Heating Substances**
		
Substances, which in contact with water, emit flammable gases (Dangerous When Wet)	**Oxidizing Gases Oxidizing Liquids Oxidizing Solids**	**Explosive Divisions 1.1, 1.2, 1.3**
		
Explosive Division 1.4	**Explosive Division 1.5**	**Explosive Division 1.6**
		
Compressed Gases	**Acute Toxicity (Poison): Oral, Dermal, Inhalation**	**Corrosive**
		
Marine Pollutant	**Organic Peroxides**	

Figure 4.11

ACUTE ORAL TOXICITY - Annex 1					
	Category 1	**Category 2**	**Category 3**	**Category 4**	**Category 5**
LD_{50}	£ 5 mg/kg	> 5 < 50 mg/kg	³ 50 < 300 mg/kg	³ 300 < 2000 mg/kg	³ 2000 < 5000 mg/kg
Pictogram					No symbol
Signal word	Danger	Danger	Danger	Warning	Warning
Hazard statement	Fatal if swallowed	Fatal if swallowed	Toxic if swallowed	Harmful if swallowed	May be harmful if swallowed

F. ACCIDENTS, SPILLS AND EMERGENCIES.

In the event of an emergency, render assistance to persons involved, warn personnel in adjacent areas, and get medical assistance. Minor injuries requiring more than a band-aid may be treated by the school nurse. Serious injuries that require immediate medical care will be handled by appropriate medical personnel. All accidents or near accidents should be reported to the department and/or building supervisors by using the forms in appendix 5. The cause can then be investigated to find the best way to avoid the reoccurrence of the incident.

The following are general guidelines. However, you should consult the MSDS or SDS for specific instructions:

1. <u>First Aid Procedures:</u>

   a. Chemical in Eye: Flush immediately for 15 minutes with tepid water, holding the eye open to wash thoroughly behind the eyelid.
   b. Chemical Ingestion: Drink large amounts of water.
   c. Chemical on Skin: Flush with water, remove contaminated clothing and seek medical attention if symptoms persist.
   d. For More Extensive Injuries:
      1. Summon medical help immediately.
      2. Do not move an injured person unless he or she is in danger of further harm.
      3. Keep injured person warm.
   e. Automatic External Defibrillator

      AEDs or Automatic External Defibrillators are small, lightweight devices that look at a person's heart rhythm (through special pads placed on the torso) and can recognize ventricular fibrillation (VF), also known as "sudden cardiac arrest" or SCA. If SCA is present, and AED will advise, and will talk the

responder through some very simple steps to defibrillate. AEDs are designed to be used by lay rescuers and "first responders". The AED is part of CPR. For maximum survivor benefits, both tools must be used together!

Only certified AED and CPR trained employees are allowed to administer these tools in a cardiac emergency.

2. Fires:

   a. Know the location of fire extinguishers in the building. They should be used for the control of small fires only by fire extinguisher trained employees.
   b. In the event of a fire, turn off all nearby equipment and if the fire cannot be controlled, contact the main office immediately. This is to insure that building alarm is sounded and the evacuation plan procedures are initiated.
   c. If clothing is on fire, roll person on floor to smother flames.

3. Emergency Evacuation:

   a. Know the location of fire alarm pull stations in your facility and, in case of an emergency, pull the fire alarm.

4. Addressing an Incidental Chemical Spills:

   If an incidental chemical spill should happen to take place, the following steps should be taken:

a. Make sure occupants in the area are aware that an incidental spill has occurred. If possible, have the school administrator notified immediately.

b. Secure information on the character and associated hazards of the chemical, amount and site of the spill; e.g. flammability, toxicity, etc. This will help determine what immediate action needs to be taken such as isolation, evacuation and/or outside responders.

c. Secure medical response support if anyone is injured as a result of the incidental spill.

d. Try to isolate volatile chemicals within the site by keeping negative pressure; e.g. keep doors closed. If possible, purge the site air using the exhaust ventilation system. If under a chemical fume hood, minimize the height of the sash.

e. Immediately secure and consult the MSDS or SDS for appropriate spill protocols.

f. Obtain spill cleaning equipment and personal protective equipment (PPE) as appropriate.

g. Put on PPE including indirectly vented chemical splash goggles, chemical resistant apron, and nitrile gloves. Appropriateness of equipment will depend on the type of chemical hazard.

h. Isolate the spill area to prevent spreading of the chemical hazard to other locations.

i. For liquid chemical spills, use high absorbency paper towels, spill pillows, vermiculite, kitty litter or sand. Place the spill pillow over the spill and try to attract the free liquid to the pillow. Put down the vermiculite, kitty litter or sand over the surface of the standing liquid. Once the spilled liquid is absorbed, used pillows or absorbent materials are to be placed in plastic bags along with contaminated PPE for proper disposal.

j. If dealing with corrosives, apply neutralizer from the spill kit. Clean up any remaining waste and place in plastic bags for appropriate disposal.

k. Once complete, a chemical spill incident report should be completed and sent to the department and building administrators.

If a spill occurs that is uncontrollable by employees, the Fire Department should be contacted. The Local Emergency Planning Committee Chairperson should be contacted, and the "Report of Petroleum or Chemical Product Discharge, Spillage or Release" (appendix 6) should be completed.

Fire Marshall's Office
2155 Main Street
Glastonbury, CT 06033
(652-7526 or 911)

G. HANDLING FLAMMABLE MATERIALS.

1. Handle only in areas free of ignition sources.
2. Never heat flammable solvents with an open flame.
3. Do not use metal containers that may develop static charges for flammable liquids.
4. When transferring flammable liquids between metal containers, be sure they are grounded properly.
5. Before lighting a flame, remove all flammable substances from the area and notify other occupants in the area.
6. Solvents with low flash points require special attention to insure that sparks and flames are a safe distance away.
7. Vapors usually sink to the floor, be careful that no spark sources exist below areas with flammable solvent vapors.

H. TRAINING

Each employee who works with, or is potentially exposed to, hazardous chemicals will receive initial training on the Hazard Communication Standard and the safe use of those hazardous chemicals. Additional training will be provided for employees as appropriate. Hazardous chemical training is coordinated by the Safety Compliance Officer. Course materials for general training are located in the Appendices.

The training will emphasize these elements:

1. Requirements of 29 CFR 1910.1200 and this written program.

2. Hazardous chemical properties including visual appearance, odor and methods that can be used to detect the presence or release of hazardous chemicals.
3. Physical and health hazards associated with potential exposure to work place chemicals.
4. Procedures to protect against hazards (e.g., personal protective equipment, work practices, and emergency procedures.)
5. Hazardous chemical spill and leak procedures.
6. Where MSDS's or SDS's are located, how to understand their content, and how employees may obtain and use appropriate hazard information.
7. An explanation of the labeling system.

Such information and/or training must also be provided to all new employees at the time of their employment.

VI. MATERIAL SAFETY DATA SHEETS (MSD's and SDS's)

The Safety Compliance Officer will maintain an MSDS or SDS library on every substance on the list of hazardous chemicals. The MSDS or SDS will consist of a fully completed OSHA Form 174 (appendix 8), or equivalent. The department supervisor will maintain an MSDS or SDS for each hazardous material in that area. For all Hazardous Material in each building MSDS's or SDS's will be maintained in a notebook OR in an electronic format directly accessible to employees by the chief building administrator. **It is the employee's responsibility to familiarize themselves with the books or electronic format and have the ability to react quickly in an emergency situation**.

Hazard Communication Safety Data Sheets by 01 June 2015

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15(29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.
See Appendix D of 1910.1200 for a detailed description of SDS contents.

The department and/or building supervisors/administrators are responsible for acquiring and updating MSDS's or SDS's. The department and/or administrator will review each MSDS or SDS for accuracy and completeness and will consult with the Safety Compliance Officer if additional research is necessary. All new procurements for each work area must be cleared by the department and/or building supervisor/administrator. Whenever possible, the least hazardous substance will be procured. Where products have similar hazards and contents, the department heads may prepare one MSDS or SDS to apply to all of these similar mixtures.

MSDS's or SDS's that meet the requirement of the Hazard Communication Standard must be completed and received at the work area either prior to, or at the time of receipt of the first shipment of any potentially hazardous chemical purchased from a vendor.

MSDS's must contain the information required in 29 CFR 1910.1200 (g)(2). Such required information must include, but is not limited to the following items:

1. Identity used on the label
2. Chemical and common names of ingredients
3. Physical and chemical characteristics
    -Boiling point
    -Vapor pressure
    -Vapor density
    -Specific gravity
    -Melting point

-Evaporating rate
-Solubility in water
-Appearance and odor

4. Physical Hazards
   -Fire
   -Explosion
   -Reactivity

5. Health Hazards (acute and chronic): signs and symptoms of exposure; medical conditions aggravated by exposure
6. Primary routes of entry
7. Exposure limits - Permissible Exposure Limit (PEL) and Threshold Limit Values (TLV)
8. Precautions for safe handling: hygienic practices, precautions during repair maintenance: spill and clean-up procedures
9. Control measures: engineering controls; work practices; personal protective equipment
10. Emergency and first aid procedures
11. Name, Address, Phone, Date

In addition MSDS's or SDS's must not have any blank spaces. However, they may have a notation stating the information is not applicable and/or not available. (NA)

When any information is missing, the department and/or building supervisor/administrator should contact the supplier and request an updated MSDS or SDS which contains at least the information required as listed above. Any attempts to obtain MSDS's or SDS's should be documented.

VII. LIST OF HAZARDOUS CHEMICALS.

The Safety Compliance Officer will maintain a list of all hazardous chemicals used in the school system, and will update the list as necessary. The hazardous chemical list will be updated upon receipt of hazardous chemicals at each building. All employees will be responsible for completing the list of hazardous chemicals in their work area which will include chemicals in all physical forms; liquids, solids, gases, vapors, fumes, and mists; whether they are "contained" or not. The department and/or building supervisors/administrators will be responsible for appointing an employee to complete a list of hazardous chemicals for a specific work area. The list of hazardous chemicals will be maintained on-site by the Safety Compliance Officer.

VIII. TECHNOLOGY LABORATORY OCCUPANCY

Based on Connecticut fire occupancy codes, a minimum of 50 square feet is to be allocated per occupant in a technology laboratory. Professional Standards (International Technology Education Association) set a maximum up to 20 students. This laboratory occupancy level is required by the HC Plan to effect a safe working environment for all personnel. Given that this is an important health and safety responsibility of the technology teacher, he or she is required to notify the HCO relative to laboratory occupancy concerns within one working day.

Laboratories in which special needs students are assigned must have appropriate paraprofessional support, handicapped furniture, etc. to maintain a safe working environment.

IX. WELDING ACTIVITIES

As required by OSHA, all welding activities (including outside contractors) require a hot permit from the DSO prior to initiating work. Permits are only operational during a 24 hour period and must be renewed for each subsequent 24 hour period (see Appendix 12 for Welding Permit form). Welding for instructional purposes (e.g. Technology Education, Agri Science) in laboratory settings or production purposes (e.g. maintenance welding shop) on school district sites require a semester permit providing there is no change in location or conditions. With every change in location or environment, a new permit is required. All other welding activities require 24 hour permits issued by the DSO.

X. CONTRACTORS.

In order to maintain a safer working environment for district employees/student, all contractors will submit a safety information plan addressing the following components:

1. Identification of hazardous materials used.
2. MSDS's or SDS's for hazardous material(s).
3. All contractors are required to be in compliance with OSHA safety standards.
4. Contractors are to maintain a safer working environment for all on-site activities.

This plan must be approved by a Safety Compliance Officer prior to initiating the contracted work. See Appendix 14.

XI. Building Safety/Indoor Air Quality Committees

1. LOCAL BUILDING HEALTH & SAFETY/INDOOR AIR QUALITY COMMITTEE

Location: Each building in the district would be required to establish a health & safety/indoor air quality committee.

Purpose: To promote health and safety in each location.
To promote indoor air quality.

Function: Health and safety advisory group to the Superintendent of Schools and District Safety Compliance Officer.

Membership: In buildings, representatives from each bargaining unit would include an administrator, teacher, secretary/paraprofessional, custodian, nurse, and cafeteria worker. District Safety Officers would serve in an ex officio capacity. One to two parents selected by principal will also serve on the committee. Two co-chairs are to be appointed representing the employees and the employer (administrator/supervisor).

Frequency of Meetings: The committee must meet at least once every two to three months for a minimum of 4 times per academic year.

Record-keeping: Attendance, agenda and minutes of meetings must be kept with copies to the Superintendent of Schools and DSO.

XII. OTHER REQUIREMENTS

A. The Safety Compliance Officer will monitor employee training and advise the department and/or building supervisors/administrators on training needs. Records of employee training will be maintained by department and/or building supervisors by using the form in appendix 5.

B. NOTICE OF SAFETY NONCOMPLIANCE AND ACCOUNTABILITY

The purpose of the Hazard Communications plan is to secure a safer working environment for all employees. In this way, it is essential that all employees actively support all components of the plan. OSHA requires a progressive disciplinary system that provides an accountability system with progressively more significant (or severe) consequences. The accountability system is important to supervisors and administrators as well as employees. The intended purpose of the safety accountability system is to increase desired safety behaviors through a system of standards, measurement, evaluation and consequences. Consequences range in a four step system from verbal/written notification to suspension or dismissal. See Appendix 13. If it is determined that an employee is out of compliance, he or she will be issued an appropriate Notice of Noncompliance which includes the accountability system.

APPENDICES

APPENDIX A: Hazard Communication Checklist

HAZARD COMMUNICATION CHECKLIST

Has a program for hazard communication training been established?	**Yes**	**No**
Has a program for hazard communication procedures been established and is the program reviewed on an annual basis?		
Are chemical injuries tracked for program improvement?		
Have chemical hazard control procedures developed for each job?		
Has a chemical inventory of the facility been conducted?		
Are the procedures reviewed on an annual basis?		
Do the hazard communication procedures include the following:		
• A statement of the intended use?		
• Steps for labeling of containers?		
• Steps for safe issuance, use, transfer and disposal of chemicals?		
Are control procedures inspected at least annually?		
Are periodic inspections conducted by a competent employee?		
Is the inspection designed to correct deviations or inadequacies?		
Is the inspection documented?		
Have MSDSs been produced in accordance with 29CFR 1910.1200?		
Have employees been informed of:		
• The requirements of 29 CFR 1910.1200?		
• Any operations in their work area where hazardous chemicals are present?		
• The location and availability of the written HAZCOM program?		
• The location and availability of the lists of hazardous chemicals?		
Does employee training include at least:		
• Methods & means necessary to detect the presence or release of a chemical?		
• The physical and health hazards of the chemicals in the work area?		
• The steps employees can take to protect themselves from the chemicals?		
• The details of the written program?		
Have criteria for recurrent training been developed?		
Is the training documented?		
Is the training conducted by a competent person?		
Is retraining required whenever there is a change in job assignments?		