



Site Recovery Services, Inc.

730 Larch Avenue

Elmhurst, Illinois 60126

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Hazard Communication Program



1. Site Recovery Service, Inc. Policy

To ensure that information about the dangers of all hazardous materials and chemicals used by Site Recovery Service is known by all affected employees, the following Hazard Communication program has been established. It is our intention to provide a hazardous chemical list, use Material Safety Data Sheets (MSDS), ensure that containers are labeled, and provide employee training to ensure compliance with 29 CFR 1910.1200.

The Safety Director, Ron Roth, is acting as a representative of Site Recovery Service, who has overall responsibility for the program.

All departments of Site Recovery Service will participate in the hazard communication program. This written program will be available at each job site and in our main office, located at 730 N. Larch Ave., Elmhurst, IL. 60126 for review by any interested party/employee.

2. Container Labeling

The program coordinator will verify that all containers received for use will be clearly labeled as to the contents, note the appropriate hazard warning, and list the name and address of the manufacturer.

The supervisor in each area will ensure that all primary containers are labeled and that secondary containers are labeled with either an extra copy of the original manufacturer's label or with labels that have the identity and the appropriate hazard warning.

3. Material Safety Data Sheet (MSDS)

The program coordinator is responsible for establishing and monitoring the organization's MSDS program. The program coordinator will make sure procedures are developed to obtain the necessary MSDS's and will review incoming MSDS's for new or significant health and safety information. The program coordinator will see that any new information is passed on to affected employees.

MSDS's will be readily available to all employees during their work shift. If an MSDS is not available, contact the area Supervisor or the Company Safety Director.

MSDS will be periodically updated by Field personal receiving new or updated MSDS's to their field manuals, and by Program Coordinator update to office manuals.

4. Employee Training and Information



The program coordinator is responsible for the Hazard Communication Program. He/she will ensure that all program elements specified below are carried out. Prior to starting work, each new employee will attend a health and safety orientation that includes the following information and training:

- A. An overview of the requirements contained in the Hazard Communication Standard
- B. The physical and health risks of the hazardous material or chemicals
- C. Symptoms of overexposure
- D. How to determine the presence or release of hazardous material/chemicals in the work area
- E. How to reduce or prevent exposure to hazardous materials/chemicals through use of control procedures, work practices, and personal protective equipment
- F. Steps Site Recovery Service has taken to reduce or prevent exposure to hazardous materials/chemicals
- G. Procedures to follow if employees are overexposed to hazardous materials/chemicals
- H. How to read labels and MSDS's to obtain hazard information
- I. Location of the MSDS file and written hazardous communication program

5. Hazardous Non-Routine Tasks

Periodically, employees are required to perform non-routine tasks that are hazardous. Prior to starting work on such projects, each affected employee will be given information by the program coordinator about

the hazardous materials/chemicals he or she may encounter during such activity. This information will include specific material/chemical hazards, protective and safety measures the employee can use, and steps Site Recovery Service is taking to reduce the hazards, including ventilation, respirators, the presence of another employee (buddy systems), and emergency procedures.

6. Informing Contractor and Other Employers

It is the responsibility of the program coordinator to provide other employers with information about hazardous chemicals their employees may be exposed to on a job site and suggested precautions for employees. It is the responsibility of the program coordinator to obtain information about hazardous material/chemicals used by other employers to which employees of Site Recovery Service may be exposed. Other employers will be provided with material safety data sheets for hazardous material/chemicals generated by Site Recovery Service.



In addition to providing a copy of an MSDS to other employers, other employers will be informed of precautionary measures needed to be taken to protect their employees who are exposed to operations performed by Site Recovery Service.

Also, other employers will be informed of the hazard labels used by the company. If symbolic or numerical labeling systems are used, the other employees will be provided with information to understand the labels used for hazardous materials/chemicals for which their employees may have exposure.

7. List of Hazardous Chemicals

Attached is a list of all known hazardous material/chemicals used by our employees. This list includes the names, the supplier or manufacturer, and further information on each material/chemical may be obtained from the MSDS's, which are located *Site Recovery Service, 730 N. Larch Ave., Elmhurst, IL. 60126*

The hazardous material/chemical inventory was compiled and is maintained by: Ron Roth (Safety Director)

9. Program Availability

A copy of this program will be made available, upon request, to employees and their representatives by contacting Ron Roth, Safety Director



Hazardous Materials Inventory

HMIS- The Hazardous Materials Identification System, was developed by the National Paint & Coatings Association (NPCA) to help employers comply with OSHA's Hazard Communication (HCS), 29 CFR 1910.1200. The system utilizes colored bars, numbers and symbols to convey the hazards of chemicals used in the workplace.



Health

The Health section conveys the health hazards of the material. In the latest version of HMIS, the blue Health bar has two spaces, one for an asterisk and one for a numeric hazard rating. If present, the asterisk signifies a chronic health hazard, meaning that long-term exposure to the material could cause a health problem such as emphysema or kidney damage. NFPA lacks this important information because the NFPA system is meant only for emergency or acute (short-term) exposures.

4	Life-threatening, major or permanent damage may result from single or repeated overexposures.
3	Major injury likely unless prompt action is taken and medical treatment is given.
2	Temporary or minor injury may occur.
1	Irritation or minor reversible injury possible.
0	No significant risk to health.



Flammability

For HMIS I and II, the criteria used to assign numeric values (0 = low hazard to 4 = high hazard) are identical to those used by NFPA. In other words, in **this** category, the systems are identical. For HMIS III, the flammability criteria are defined according to OSHA standards:

4	Flammable gases, or very volatile flammable liquids with flash points below 73 °F, and boiling points below 100°F. Materials may ignite spontaneously with air. (Class IA) .
3	Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 °F and boiling points above 100 °F, as well as liquids with flash points between 73 °F and 100 °F. (Classes IB & IC).
2	Materials that must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 °F but below 200 °F. (Classes II & IIIA)
1	Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 °F. (Class IIIB).
0	Materials that will not burn.



MSDS REQUEST FORM

Site Recovery Service s, Inc.
730 N. Larch Ave.
Elmhurst, IL. 60126

Date:

To Whom It May Concern:

We are currently using the following product(s) in our workplace:

- 1.
- 2.
- 3.

However, we do not have a corresponding Material Safety Data Sheet (MSDS) as required by OSHA Hazard Communication Standard (29 CFR 1910.1200).

OR

The attached Material safety Data Sheet (MSDS) appears to be missing the following information:

- 1.
- 2.
- 3.

Please insure that we receive to required MSDS within 15 days so that we may comply with the State of Alaska, OSHA Standards and provide adequate protection to our employees. Also, please consider this request as a standing order for any update information that affects this product(s) in the future.

Thank you for your prompt attention,

Sincerely,

Ron Roth
Safety Director



Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

Manufacturer's Name:	Emergency Phone Number:
Address:	Telephone Number for Information:
City, State and Zip Code:	Date Prepared:
	Signature of Preparer:

Section II - Hazard Ingredients/Identity Information

Boiling Point	Specific Gravity (H ₂ O = 1)
Vapor Pressure (mm Hg.)	Melting Point
Vapor Density (AIR = 1)	Evaporation Rate (Butyl Acetate = 1)
Solubility in Water	
Appearance and Odor	

Section IV - Fire and Explosion Hazard Data

Reproduce (locally)

Section V - Reactivity Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
Health Hazards (<i>Acute and Chronic</i>)			
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
Signs and Symptoms of Exposure			
Medical Conditions	Generally Aggravated by Exposure		
Emergency and First Aid Procedures			



Section VI - Health Hazard Data

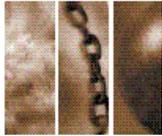
Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
Health Hazards (<i>Acute and Chronic</i>)			
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
Signs and Symptoms of Exposure			
Medical Conditions - Generally Aggravated by Exposure			
Emergency and First Aid Procedures			

Section VII - Precautions for Safe Handling and Use

Steps to be taken in Case Material is Released or Spilled
Waste Disposal Method
Precautions to Be taken in Handling and Storing
Other Precautions

Section VII - Precautions for Safe Handling and Use

Respiratory Protection (<i>Specify Type</i>)		
Ventilation	Local Exhaust	Special
	Mechanical (<i>General</i>)	Other
Protective Gloves	Eye Protection	
Other Protective Clothing or Equipment		
Work/Hygienic Practices		



Hazardous Materials Identification System (HMIS)

Reactivity (HMIS I and II - now obsolete)

The criteria used to assign numeric values (0 = low hazard to 4 = high hazard) were identical to those used by NFPA. In other words, in this category, the systems were identical.

This version is now obsolete. The yellow section has been replaced with an orange section titled Physical Hazards - see the next section for more information.

Physical Hazard (HMIS III)

Reactivity hazard are assessed using the OSHA criterion of physical hazard. Seven such hazard classes are recognized:

Water Reactives Organic Peroxides Explosives Compressed Gases Pyrophoric
Materials Oxidizers Unstable Reactives

This version replaces the now-obsolete yellow section titled Reactivity. See the previous section for more information. As with the Health and Flammability sections, the level of hazard is indicated using numeric values (0 = low hazard to 4 = high hazard):

4	Materials that are readily capable of explosive water reaction, detonation or explosive decomposition, polymerization, or self-reaction at normal temperature and pressure.
3	Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, selfreact, reaction in the presence of a strong initiating source. Materials may polymerize, decompose, selfreact, or undergo other chemical change at normal temperature
2	Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.
1	Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
0	Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose , condense, or self-react. Non-explosives.



Hazardous Materials Identification System (HMIS)

Personal Protection

This is by far the largest area of difference between the NFPA and HMIS systems. In the NFPA system, the white area is used to convey special hazards whereas HMIS uses the white section to indicate what personal protective equipment (PPE) should be used when working with the material.

Note: The NPCA specifically recommends that "preparers of MSDSs **should not place HMIS PPE designation codes on the MSDSs or labels that leave the facility**, as they do not know the conditions under which their customers use those products." However, these still turn up on some MSDS's. HMIS uses a letter coding system for this section. We at ILPI find this unacceptable because we would rather see the PPE listed explicitly instead of having employees try to remember a bunch of codes or consult a chart, something that could lead to confusion and/or a fatal accident. Likewise, the "custom codes" aspect is particularly dangerous for visitors and contractors who may not remember/recognize that these could vary from job site to job site. We present the lettering scheme here, along with a series of graphics meant to reinforce the meaning of each letter.



Hazardous Materials Identification System (HMIS)

HMIS Letter	Required Equipment
A	 Safety Glasses
B	  Safety Glasses Gloves
C	   Safety Glasses Gloves Protective Apron
D	   Face Shield Gloves Protective Apron
E	   Safety Glasses Gloves Dust Respirator
F	    Safety Glasses Gloves Protective Apron Dust Respirator
G	   Safety Glasses Gloves Vapor Respirator
H	   Splash Goggles Gloves Protective Apron
I	    Safety Glasses Gloves Dust Respirator Vapor Respirator
J	     Splash Goggles Gloves Protective Apron Dust Respirator Vapor Respirator
K	    Air Line Mask or Hood Gloves Full Suit Boots
L through Z	<p style="color: blue;">Site-specific label. Ask your supervisor or safety specialist for handling instructions.</p>



NFPA 704 Hazard Identification Rating System

NFPA 704 -Hazard Identification Rating System, the familiar NFPA "hazard diamond" for health, flammability, and instability. This identification system is designed to inform first responders. Additional information needs to be provided on the container label to meet the requirements of the Hazard Communication Standard. **Health Hazard**



Flammability	
4	Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.
3	Liquids and solids that can be ignited under almost all ambient conditions.
2	Must be moderately heated or exposed to relatively high temperature before ignition can occur.
1	Must be preheated before ignition can occur.
0	Materials that will not burn.

Health Hazard	
4	Very short exposure could cause death or serious residual injury even though prompt medical attention was given.
3	Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
2	Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
1	Exposure could cause irritation but only minor residual injury even if no treatment is given.
0	Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.



NFPA 704 Hazard Identification Rating System



Instability	
4	Readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.
3	Capable of detonation or explosive reaction, but requires a strong initiating source or must be heated under confinement before initiation, or reacts explosively with water.
2	Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixture with water.
1	Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.
0	Normally stable, even under fire exposure conditions, and are not reactive with water.



Special Hazards	
This section is used to denote special hazards. There are only two NFPA 704 approved symbols :	
OX	This denotes an oxidizer, a chemical which can greatly increase the rate of combustion/fire.
W	Unusual reactivity with water. This indicates a potential hazard using water to fight a fire involving this material.

ACID	This indicates that the material is an acid, a corrosive material that has a pH lower than 7.0
ALK	This denotes an alkaline material, also called a base. These caustic materials have a pH greater than 7.0
COR	This denotes a material that is <u>corrosive</u> (it could be either an acid or a base) .
	This is a another symbol used for crrosive.
	The skull and crossbones is used to denote a poison or highly toxic material. See also: CHIP Danger symbols.
	The international symbol for radioactivity is used to denote radioactive hazards; radioactive materials are extremely hazardous when inhaled.
	Indicates an explosive material. This symbol is somewhat redundant because explosives are easily recognized by their Instability Rating.



DEFINITIONS

PEL- Permissible Exposure Limit. The amount of material an employee can be exposed to, normally during an 8-hour work shift. The PEL is enforceable by the Maine Department of Labor. PEL's can be defined in two different ways as discussed in the OSHA regulation on air contaminants, 1910.1000:

Ceiling Values - at no time should this exposure limit be exceeded. (Sometimes denoted with the letter C.)

8-hour Time Weighted Averages (TWA) - are an average value of exposure over the course of an 8 hour work shift.

TWA levels are usually lower than ceiling values. Thus, a worker may be exposed to a level higher than the TWA for part of the day (but still lower than the ceiling value) as long as he is exposed to levels below the TWA for the rest of the day. See 1910.1000 for the formulas used in the calculations.

REL- Recommended Exposure Limit. The recommended amount of material an employee can be exposed to during an 8-hour work shift. The REL is a recommendation from NIOSH and is not enforceable by the Maine Department of Labor.

TLV- Threshold Limit Value. Are guidelines (not standards) prepared by the American Conference of Governmental Industrial Hygienist, Inc. (ACGIH) to assist industrial hygienists in making decisions regarding safe levels of exposure to various hazards found in the workplace.

STEL- Are generally used only when toxic effects have been reported from high acute (short-term) exposures in either humans or animals. An STEL is not a separate independent exposure limit, but supplements time-weighted average limits where there are recognized acute effects from a substance whose toxic effects generally chronic (long-term) in nature.

- For example, one cannot be exposed to an STEL concentration if the TLV-TWA (time weighted average for an 8 hour shift; see Permissible Exposure Limit (PEL) would be exceeded. Workers can be exposed to a maximum of four STEL periods per 8-hour shift, with at least 60 minutes between exposure periods.

A Short Term Exposure Limit (STEL) is defined by ACGIH as the concentration to which workers can be exposed continuously for a short period of time without suffering from:

- Irritation
- Chronic or irreversible tissue damage
- Narcosis of sufficient degree to increase the likelihood of accidental injury, impair self-rescue or materially reduce work efficiency.

CAS - Chemical Abstracts Service Registry Number is a unique identifier that tells you, for example, that acetone and dimethyl ketone are actually the same substance. From a safety and inventory perspective, this is a terrific idea.

NIOSH - National Institute of Occupational Safety and Health, operated by the Centers for Disease Control.

ACGIH - American Conference of Governmental Industrial Hygienists.

ANSI - American National Standards Institute- American National Standards Institute, ANSI, is a private, non-profit membership organization representing over 1,000 public and private organizations, businesses and government agencies. They seek to develop technical, political and policy consensus among various groups.

MDOL - Maine Department of Labor

NFPA - The National Fire Protection Association is a private non-profit organization, is the leading authoritative source of technical background, data, and consumer advice on fire protection, problems and prevention.

PPE - Personal Protective Equipment



DEFINITIONS

Engineering Controls - Eliminate or reduce exposure to a chemical or physical hazard through the use or substitution of engineered machinery or equipment. Examples include self-capping syringe needles, ventilation systems such as a fume hood, sound-dampening materials to reduce noise levels, safety interlocks, and radiation shielding.

Toxic - falls in any of these three categories:

1. A chemical that has a median lethal dose (LD₅₀) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.
2. A chemical that has a median lethal dose (LD₅₀) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.
3. A chemical that has a median lethal concentration (LD₅₀) in air of more than 200 parts per million, but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter, but not more than 20 milligrams per liter of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

Highly toxic is defined as:

1. A chemical that has a median lethal dose (LD₅₀) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.
2. A chemical that has a median lethal dose (LD₅₀) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.
3. A chemical that has a median lethal concentration (LD₅₀) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

Toxicology is the study of the nature, effects, detection, and mitigation of poisons and the treatment or prevention of poisoning.

Chemical - Any element, chemical compound or mixture of elements and/or compounds.

Combustible liquid - Any liquid having a flashpoint at or above 100°F (37.8°C), but below 200°F (93.3°C), except any mixture having components with flashpoints of 200°F (93.3°C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Explosive - A chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Flammable material - can be a solid, liquid or gas.

OSHA defines a flammable liquid as "any liquid having a flash point below 100°F. (37.8°C.), except any mixture having components with flash points of 100°F. (37.8°C.) or higher, the total of which make up 99 percent or more of the total volume of the mixture. Flammable liquids shall be known as Class I liquids."



DEFINITIONS

Flammable limits - apply generally to vapors and are defined as the concentration range in which a flammable substance can produce a fire or explosion when an ignition source (such as a spark or open flame) is present. The concentration is generally expressed as percent fuel by volume.

- Above the **upper flammable limit** (UFL) the mixture of substance and air is too rich in fuel (deficient in oxygen) to burn. This is sometimes called the **upper explosive limit** (UEL).
- Below the **lower flammable limit** (LFL) the mixture of substance and air lacks sufficient fuel (substance) to burn. This is sometimes called the **lower explosive limit** (LEL).

Any concentration between these limits can ignite or explode -- use extreme caution! Being above the upper limit is not particularly safe, either. If a confined space is above the upper flammable limit and is then ventilated or opened to an air source, the vapor will be diluted and the concentration can drop into the flammable limit range.

Solvent - A substance that dissolves another substance or substances to form a solution (a homogeneous mixture). The solvent is the component in the solution that is present in the largest amount or is the one that determines the state of matter (i.e. solid, liquid, gas) of the solution. Solvents are usually, but not always, liquids. They can also be gases or solids.

Ventilation - The process of supplying fresh air to an enclosed space in order to refresh/remove/replace the existing atmosphere. Ventilation is commonly used to remove contaminants such as fumes, dusts or vapors and provide a healthy and safe working environment; in other words, it is an engineering control. Ventilation can be accomplished by natural means (e.g., opening a window) or mechanical means (e.g., fans or blowers).