# HAZARD COMMUNICATION PLAN

**Revised 2009** 

# TABLE OF CONTENTS

## PART I. GENERAL INFORMATION

Regulatory AuthorityI-3
Definitions
ResponsibilityI-4

## PART II. IDENTIFICATION OF HAZARDOUS MATERIALS

Material Safety Data Sheets	II-1
Container Labeling	II-2
Chemical Information Lists	II-3

## PART III. HAZARD COMMUNICATION

Employee Information and Training	III-1
Contractors	III-1
Asbestos Management	III-2
Entry into Radiation Areas.	III-3
MATERIAL SAFETY DATA SHEET GLOSSARY OF TERMS	APPENDIX A
CHEMICAL INFORMATION LIST	APPENDIX B

## I. GENERAL INFORMATION

## A. Purpose

This Hazard Communication Program (HCP) was developed pursuant to the Maryland Right-to-Know Law and the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS) (29 CFR 1910.1200). The written HCP details how the University of Maryland Eastern Shore will comply with the requirements of both the Maryland State and federal Hazard Communication regulations. The purpose of the program is to provide employers and employees with information and training on hazardous chemical substances in the workplace. The goal of this program is to reduce the incidence of chemical source illnesses and injures.

## B. Regulatory Authority

29 CFR 1910.1200, Hazard Communication Standard

## C. Definitions

**Article** - A manufactured item formed to a specific shape or design that has end use functions dependent upon that shape/design, and that does not release or otherwise result in exposure to a hazardous chemical under normal conditions of use. A chair is an article. Wood that is cut during construction of the chair may be considered hazardous due to health effects associated with inhalation of dusts.

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

**Consumer Commodity** - Any article, product, or commodity which is available to consumers; and which is used in the same manner, frequency and duration as the typical consumer.

**Employee** - A worker who may be exposed to hazardous chemicals during normal operating conditions or during foreseeable emergencies. Workers such as office workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered by the Hazard Communication Program.

**Exposure or Exposed** - Means that an employee in the course of employment comes in contact (inhalation, ingestion, skin contact or absorption) with a chemical that is a physical or health hazard; and includes potential (including accidental) exposure.

**Foreseeable Emergency** - Any potential occurrence such as, but not limited to equipment failure, container rupture or failure of control equipment that could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazardous Chemical - Any chemical which is a physical or health hazard.

**Health Hazard** - A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. Hazardous chemicals include carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system and agents which damage the lungs, skin, eyes or mucous membranes

**Immediate Use** - Means that the chemical will be under the control of and used only by the person who transfers it from a labeled container, and only within the work shift in which it is transferred.

**Mixture** - Any combination of two or more chemicals other than components resulting from a chemical reaction.

**Non-Routine Tasks -** Tasks involving the use of a hazardous material for a purpose other than that intended (e.g., using gasoline to degrease a stove), or tasks that are not conducted routinely and that involve the use of a hazardous material (e.g., cleaning a boiler's combustion chamber).

**Physical Hazard** - A chemical or mixture that is combustible, explosive, pyrophoric, reactive or is a compressed gas, oxidizer or organic peroxide.

**Project Manager** - The UM employee responsible for directing and overseeing the activities of an outside contractor. Most Project Managers at UM work for the Facilities Management Department.

**Trade Secret** - Any confidential formula or information that is used in an employer's business and gives that employer an opportunity to obtain an advantage over competitors who do not know or use it.

Use - To package, handle, react, emit, extract, generate as a byproduct, or transfer.

**Work Area** - A defined space in a workplace where hazardous chemicals are produced or used, and where employees are present (e.g., Physics Machine Shop).

**Workplace** - An establishment at one geographical location containing one or more work areas (e.g., Facilities Management - Building Services).

## D. Responsibility

## Environmental Health and Safety

Environmental Health and Safety (EHS) is responsible for the overall hazard communication program on campus. EHS develops, administers, and updates the HCP, as well as coordinates implementation of the program on campus. EHS also has the following responsibilities:

- 1. Distribute the Hazard Communication Program to UMES departments;
- 2. Provide consultation, worksite monitoring (sampling), advisory assistance and information concerning use of hazardous chemicals;
- 3. Assist departments in obtaining required MSDSs;
- 4. Investigate and document significant chemical injuries, accidents and exposures;
- 5. Provide Chemical Information Lists to State and local regulatory and emergency response agencies as necessary;
- 6. Archive all Chemical Information Lists as a permanent record of potential employee chemical exposure;
- 7. Provide training to workers and supervisors involved with operations where hazardous materials are handled;
- 8. Maintain records of training conducted by EHS staff;
- 9. Make training records available to Hazard Communication Coordinators or supervisors
- 10. Develop and distribute basic Hazard Communication information to all employees

## Department Heads

Department heads ensure the implementation of the Hazard Communication Program for their facilities and the personnel under their control. Departments may designate an individual(s) as Hazard Communication Coordinator to implement the Hazard Communication Program. Department heads are also responsible for the following:

- 1. Notify EHS prior to distributing or importing hazardous chemicals,
- 2. Inform supervisors of their Hazard Communication management responsibilities, and;
- 3. Ensure department Chemical Information Lists (CIL) are completed.

## Supervisors

Supervisors of workers handling hazardous materials must ensure that employees have access to the written Hazard Communication Program and that their employees receive training in the safe use, handling and storage of hazardous chemicals. Supervisors are also responsible for the following:

- 1. Document hazard communication training for employees.
- 2. Ensure hazardous materials are evaluated to determine necessary precautions;
- 3. Ensure that containers of hazardous materials are labeled properly;
- 4. Ensure that MSDSs are accessible and readily available to employees in their work area prior to their initial assignment and when requested;
- 5. Develop and maintain CILs in work areas;
- 6. Implement protective measures to minimize or eliminate employee exposure to hazardous chemicals;
- 7. Follow requirements established by the department's Hazard Communication Coordinator(s)
- 8. Assess the hazards and protective measures associated with non-routine tasks involving hazardous materials; and

9. Ensure completion of First Reports of Injury for employee illnesses or injuries caused by exposure to hazardous materials.

## Employees

Employees that have the potential for exposure to hazardous chemicals are required to attend Hazard Communication training and comply with the requirements of the Hazard Communication Program. Employees are also responsible for the following:

- 1. Be familiar with and implement protective measures as instructed by supervisors and as specified in MSDSs:
  - a. Consult chemical lists in the work area.
  - b. Read drum and container labels
  - c. Know the locations of MSDSs
  - d. Follow approved procedures and wear recommended or assigned PPE
  - e. Attend all training sessions
  - f. Ask your supervisor or program coordinator questions
- 2. Report all workplace injuries, chemical exposure incidents or unsafe work conditions to supervisors as soon as possible

#### **Contractors**

Contractors develop and implement their own Hazard Communication Program. They are required to identify hazardous chemicals used on campus and provide access to MSDSs upon request by UMES personnel.

## PART II. IDENTIFICATION OF HAZARDOUS MATERIALS

Specific definitions of health hazards may be referenced in Appendix A of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Articles and Consumer Commodities (15 USC 2051 et seq) are not considered hazardous.

#### A. Material Safety Data Sheets

Material Safety Data Sheets (MSDSs) are the primary source of reference information used by UMES supervisors and employees to evaluate materials for potential hazards, and to determine necessary precautions for safe use.

- 1. Formats for MSDSs vary, but must contain the following data:
  - (a) Name of material;
  - (b) Identity of the hazardous constituent(s) that compromise 1% or greater of the material (0.1% or greater for carcinogens) or that may release airborne concentrations at hazardous levels;
  - (c) Physical and chemical characteristics (e.g., vapor pressure, boiling point);
  - (d) Physical hazards (e.g., flammability, corrosivity);
  - (e) Health hazards including signs and symptoms of exposure and medical conditions that may be aggravated by exposure;
  - (f) Primary routes of entry (e.g., inhalation, ingestion);
  - (g) Regulated or recommended exposure limits;
  - (h) Identification of carcinogenicity status;
  - (i) Precautions for safe handling, use and storage;
  - (j) Control measures to ensure safe use (e.g., exhaust ventilation);
  - (k) Emergency and first aid procedures;
  - (1) Date of preparation of MSDS; and
  - (m) Name, address and phone number of the MSDS provider.
- 2. Manufacturers, distributors or importers of hazardous materials must generate a MSDS for each hazardous chemical, and are required to provide it to purchasers when the material is ordered or delivered. If MSDSs are not received with a new chemical/material, the Hazard Communication Coordinator or supervisor must contact the manufacturer or distributor to obtain the MSDS. EHS will provide assistance if needed and requested.
- 3. MSDSs are reviewed as they are received for new information and accuracy. If any parts of the MSDSs are missing or incomplete, the supervisor will request a new MSDS from the manufacturer. If new hazard or safety information is received on the MSDS, the supervisor is responsible for informing employees of the new information on hazards or safety introduced into their work area. MSDSs are available to all employees for review by requesting access through their supervisor or EHS.

- 4. Employees must be assured immediate access to MSDSs at all times. If employees move between work sites, the MSDSs may be kept at the primary work location if a system for access is established.
- 5. Designated employee representatives (e.g., union representative) must also be provided MSDSs upon request. If an employee or designated representative requests a copy of a MSDS, it must be provided within five days.
- 6. Electronic access or other "non-paper" formats are permissible if employees are assured immediate access to the information during an emergency. A secondary method of access is required to ensure availability during power outages, computer failures, etc. Hazard Communication Coordinators or supervisors may establish an internal system for hard copy access. Employees must be notified of methods to obtain an MSDS during an emergency. EHS also maintains an electronic database of MSDS at the Physical Plant.
- 7. MSDSs must be in English. MSDSs are not required to be available in a language other than English, but copies may also be provided in other languages if desired. It is the supervisor's responsibility to ensure appropriate direction or translation is provided to an employee who is unable to understand or interpret the information contained in the MSDS.
- 8. The MSDS does not need to include identification of chemical constituents if the material is classified a "trade secret." All other elements of the MSDS must be completed to reflect the hazards and necessary precautions. Identification of the constituents must be disclosed to health care providers when requested, and when an employee's health is at issue.

## B. Container Labeling

- 1. Three common marking systems that many manufacturers use to identify hazardous materials are:
  - a. Hazardous Materials Information System (HMIS). This relies on a color-coding and numerical system to identify a hazard and the severity of that hazard.
  - b. National Fire Protection Association (NFPA) diamond rating system that relies on a color coding and a numerical system to identify hazard severity.
  - c. Uniform Laboratory Hazard Signage (ULHS) identifies areas or locations where hazardous substances are used or stored using *pictograph symbols*.
- 2. UMES will meet the H.C.S requirements for container labeling in this facility in the following manner:

- a. All chemical containers will be labeled or marked with hazard information and appropriate hazard markings (words, pictures, symbols or combination) that provide at least general information concerning the chemical's hazards.
- b. Each container of hazardous material in this facility received from an outside supplier will be clearly labeled with:
  - a) Identity of hazardous chemical (s)
  - b) Appropriate hazard warnings
  - c) Name and address of the manufacturer
- c. Each non-empty container of hazardous materials in this facility, including mixing tanks, storage tanks, drums, bags, and bottles will have a label attached to it.
- d. Hazardous substances in unlabeled piping must also be identified if employees are anticipated to have direct contact (including inhalation) with the substance.
- 3. Labels on containers of hazardous materials may not be removed, covered or defaced unless the container is empty or is immediately re-marked with the required information. Labels must be legible, in English, and prominently displayed or available in the work area. Label information in other languages may be included if also presented in English.
- 4. UMES will not accept shipments of hazardous material without proper labeling. Any containers of hazardous materials that are received without proper labeling are impounded in a designated area of the facility and will not be released for use until such time as proper labels can be applied. Labels provided by vendors on incoming containers will not be defaced or removed. If vendor labels are not available, a special label bearing the information in "A" above should be filled out and attached. Portable container labels may be used for this purpose.
- 5. All transfer containers must be labeled with identification and hazard information except those intended for "immediate use" (see definition). Immediate use containers *should* be labeled with the name of the product to prevent mis-identification by the employee. Whenever hazardous materials are transferred into portable containers, the person transferring the material should attach a portable container label. The label must include the name of the product, identity of the hazardous chemical contained and applicable hazard warnings. If the person transferring the material is uncertain of the identity of the hazardous chemical contained and applicable hazard warnings, he or she should contact the Hazard Communication Program Coordinator.

## C. Chemical Information Lists

Departments using hazardous materials must assemble and maintain accurate Chemical Information Lists that identify the hazardous materials in the workplace.

- 1. Departments may develop a single list identifying hazardous materials used in multiple work areas, or may maintain a separate list for each work area. If multiple work areas are included in a single list, departments must include a system to permit the identification of hazardous materials by work area. If symbols, letters or numbers are used to identify separate work areas, a key, map or other appropriate descriptive information must be included. Hazardous materials contained in piping systems where there is reasonable cause to suspect employee contact must also be included.
- 2. Chemical Information Lists must include:
  - (a) Complete name and business address of the employer;
  - (b) Date of preparation or revision;
  - (c) The product name (must match the name on its MSDS); and
  - (d) The manufacturer or supplier name
- 3. New hazardous materials brought into the workplace must be added to the Chemical Information List within 30 days. The date of addition must appear next to its entry until such time as the list is re-printed with a new revision date. Adjustments to the Chemical Information List should also be made within 30 days when hazardous materials are removed from inventory. The list(s) shall be attached to the written Hazard Communication Program as Appendix C.
- 4. Chemical Information Lists must be reviewed every year to assure they are accurate and complete. Lists will be re-alphabetized by product name annually, and copies forwarded to EHS for recordkeeping. EHS is responsible for providing Chemical Information Lists to the Maryland Department of the Environment and local regulatory and emergency response agencies as necessary.
- 5. EHS will archive all Chemical Information Lists to serve as an historical record of employees' potential chemical exposures.

Use of any of the following materials may be subject to specific occupational safety and health standards. Copies of these standards may be obtained from EHS or through the OSHA Web site at http://www.osha.gov/.

Asbestos, tremolite, anthophyllite and actinolite	29 CFR 1910.1001
4-Nitrobiphenyl	.1003
alpha-Naphthylamine	.1004
4,4'-Methylene bis(2-chloroaniline)	.1005
Methyl chloromethyl ether	.1006
3,3'-Dichlorobenzidine (and salts)	.1007
bis-Chloromethyl ether	.1008
beta-Naphthylamine	.1009
Benzidine	.1010
4-Aminodiphenyl	.1011

## UMES Hazard Communication Plan

Ethyleneimine	.1012
beta-Propiolactone	.1013
2-Acetylaminofluorene	.1014
4-Dimethylaminoazobenzene	.1015
N-Nitrosodimethylamine	.1016
Vinyl Chloride	.1017
Arsenic (inorganic)	.1018
Lead	.1025
Cadmium	.1027
Benzene	.1028
Cotton dust	.1043
1,2-Dibromo-3-chloropropane	.1044
Acrylonitrile	.1045
Ethylene oxide	.1047
Formaldehyde	.1048
4,4'-Methylenedianiline	.1050
Methylene Chloride	.1052
Non-Asbestiform tremolite, anthophyllite and actinolite	.1101

## PART III. HAZARD COMMUNICATION

#### A. Employee Information and Training

Each employee with potential exposure to hazardous chemicals shall be provided information and training regarding the hazards of the chemicals in their work area. Training must be provided at the time of the employee's initial assignment. Employees shall be informed of:

- (a) Contents of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and its appendices;
- (b) Location and availability of the UMES Hazard Communication Program;
- (c) Description of labeling systems;
- (d) Explanation of the MSDS;
- (e) Hazardous chemical properties including physical and health hazards associated with chemical exposure;
- (f) Methods and observations used to detect the presence or release of hazardous chemicals specific to work areas;
- (g) Measures employees can take to protect themselves from chemical hazards including personal protective equipment, work practices and emergency procedures; and
- (h) Hazardous chemical spill and leak procedures;

Initial training for employees shall be coordinated through the department or the employee's supervisor. Retraining is required annually, when work conditions change, and when a supervisor believes it is necessary. The training program content must satisfy all regulatory requirements; EHS reserves the right to periodically audit training conducted by other departments.

Training may be provided by EHS staff by contacting EHS at (410) 621-3040.

#### Supplemental or Hazard-Specific Training (Non-Routine Tasks)

If hazardous chemicals will be used in a non-routine manner (i.e. tasks that are not regularly performed), the supervisor must ensure that the hazards are assessed determine the appropriate protective measures.

#### **B.** Contractors

UMES meets the H.C.S. requirements for informing on-site contractors about hazardous chemicals to which their employees may be exposed in the following manner:

- (a) It is the responsibility of the Project Manager to furnish the on-site contractor with the following:
  - 1. Description of hazardous chemicals to which the contractor's employees may be exposed
  - 2. Suggestions for appropriate protective measures.
- (b) Likewise, on-site contractors will furnish UMES with the following:
  - 1. Description of any hazardous chemicals brought onto UMES property to which UMES employees may be exposed.
  - 2. Suggestions for appropriate protective measures

#### C. Asbestos Management

Asbestos-containing building materials (ACBMs) are present in many University of Maryland facilities. Asbestos was used for the fabrication of resilient flooring, thermal system insulation, plaster, drywall, adhesives, caulks, wire insulation, fireproofing, ceiling tiles, wire insulation, spray-applied acoustical or decorative finishes, fire doors, laboratory bench tops and many other products.

Most maintenance and housekeeping staff perform tasks that require routine contact with ACBMs. The work performed by these employees will not generate hazardous concentrations of airborne asbestos if the ACBMs are not cut, torn, sanded, abraded or otherwise damaged. These employees are termed "Asbestos Level I Workers" according to the State Asbestos Control Program and the University's Asbestos Management Plan.

Annual Asbestos Awareness Training is required for Level I employees to ensure appropriate protocols are followed to prevent asbestos dust from becoming airborne. If Level I workers encounter any damaged building material or debris they suspect is asbestos-containing, they are to cease work in that area and contact their supervisor to verify the hazard and coordinate an appropriate UMES cleanup response.

Some maintenance workers at the University may remove/repair limited quantities of ACBMs. These employees are termed "Asbestos Level II Workers." All asbestos workers receive initial and annual training accredited by the Environmental Protection Agency to ensure procedures are followed that minimize potential asbestos exposure to themselves and building occupants. Outside contractors conduct most of the asbestos abatement work on campus. All contractors must be licensed to perform such work by the State of Maryland. Work is supervised by the Department of Facilities Management.

If employees may reasonably expect to come into contact with ACBMs during the normal course of their duties, the Chemical Information List must include asbestos as a hazardous material. Training concerning the hazards and appropriate procedures must be incorporated into the training program, either as a component of Hazard Communication training or as a separate

program. The UMES Asbestos Management Plan is administered by the Department of Facilities Management.

## **D.** Entry into Radiation Areas

Some laboratory facilities at UMES contain radiation-producing devices or radioactive materials that generate or emit ionizing radiation. Regulations promulgated by the Nuclear Regulatory Commission and Maryland Department of the Environment prohibit non-radiation workers from entering into areas where potential for radiation exposure exists unless entrants receive training or are escorted by knowledgeable laboratory workers who can ensure that hazardous conditions are avoided. Locations at UMES where potential radiation exposure exists are demarcated with the radiation symbol.

The UMES Radiation Safety Officer provides training by request to workers who require unescorted access into these restricted areas. Supervisors are responsible for determining if employees require this training.

#### **APPENDIX** A

#### MATERIAL SAFETY DATA SHEET GLOSSARY OF TERMS

<u>Material Safety Data Sheet (MSDS)</u>: Document prepared by a manufacturer or importer that provides detailed information on a hazardous chemical and is available for every hazardous chemical or substance.

<u>Labels</u>: must be affixed to all hazardous chemical containers that are shipped and that are used at a workplace.

#### Hazards Identification

<u>Hazard Definition</u>: A toxic or hazardous substance which has the capacity to produce personal injury or illness to man through indigestion, inhalation or absorption through any body surface.

Chemical States: solid, liquid or gas

#### Chemical Categories:

#### Health Hazards

Acute toxic Chronically toxic Carcinogenic Mutagenic Teratogenic Sensitizing agent Corrosive Irritant

Physical Hazards

Oxidizers Flammable/combustible Explosive Unstable Pyrophoric

<u>Toxicity</u>: the extent to which a substance will produce harmful effects. The factors involved in determining toxicity are:

- 1. <u>Amount of Exposure</u>: size of dose
- 2. <u>Sensitivity</u>: a person's body condition dictates the effect
- 3. Chemical Combination: Example: a smoker exposed to asbestos

Length of Exposure: contact varies from a period of minutes, days, months or years.

<u>Acute:</u> usually short-term exposure such ammonia that can cause throat and eye irritation while breathing in 100 times may be fatal.

<u>Chronic:</u> is usually long-term exposure involve small amounts of toxic can lead to serious health effects such as breathing carbon tetrachloride regularly over a long period of time could cause liver damage.

<u>Routes of Entry</u>: Routes by which hazardous substances enter the body. The primary routes of entry are skin, ingestion, and inhalation.

<u>Skin contact</u>: liquid chemicals can cause external reactions, a burning or an irritation; some chemicals can enter the system through the pores.

Ingestion: Exposure occurs through swallowing, putting a finger in the mouth, drinking or eating

Inhalation: Exposure occurs by breathing in toxic dust or vapors

<u>Carcinogen</u> – a cancer causing agent researched by the National Toxicology Program and/or the International Agency for Research on Cancer (IARC)

Symptoms of Exposure: the most common sensations experienced by an exposed person.

<u>Emergency First Aid</u>: procedures for treating inhalation skin or eye contact – see a doctor as soon as possible.

#### **Chemical Product Composition**

<u>Principal Hazardous Components</u> - chemical components in a mixture sufficient to produce flammable vapor or gas to ignite – to produce acute or chronic adverse effects in doses and result in a health hazard.

<u>Percent</u> - tells approximate percentage of each hazardous component by weight or volume, usually to the nearest 5 percent except any ingredient determined to be a health hazard. Chemicals identified as carcinogens which shall be listed if the concentrations are 0.1%.

<u>Threshold Limit Value</u> - Average 8-hour occupational exposure limit –higher or lower and the average must not exceed TLV (Threshold Limit Value).

#### Fire and Explosion Hazard Data

<u>Flash Point</u>: refers to the temperature in degrees at which a liquid will give off enough flammable vapor or ignite.

<u>Flammable Limits</u>: refers to the range of gas or vapor concentrations, in air, which will burn or explode if an ignition source is present

<u>LEL</u>: means lower explosive limit.

<u>UEL</u>: Upper explosive limit – determines the volume of ventilation needed for an enclosed space to prevent fires and explosion

Extinguishing Media: for chemical fires, special formulations and standard agents – usually have generic names such as water, fog, foam, alcohol foam, CO2 and dry chemical

<u>Special Fighting Procedures</u>: type of fire fighting media and personal protective equipment to use if water is unsuitable

<u>Unusual Fire and Explosion Hazard</u>: such hazards and/or any special conditions that govern them

## Physical and Chemical Properties

Boiling Point: temperature at which liquid boils in degrees "F" at a pressure of 760mm Hg.

Vapor Pressure: pressure of saturated vapor above the liquid in mm of Hg at 20 C.

<u>Vapor Density</u>: relative density or weight of a vapor or gas compared with an equal amount of air.

Solubility in Water: how well substance dissolves in water by weight in distilled water at 50

<u>Appearance and Color</u>: give brief description – viscous colorless liquid with aromatic odor.

<u>Specific Gravity</u>: ratio of the weight of volume of material to the weight of an equal amount of water 39.2 F – determines whether substance floats or sinks in water.

<u>Percent Volatile by Volume</u>: (%) refers to the percentage of the liquid or solid by volume that evaporates at ambient temperature of 70 F such as "Napthalene".

<u>Evaporation Rate</u>: refers to whether the rate is greater of less than 1. Either Butyl Acetate or Ether may be taken as unity.

<u>pH</u>: a measure of how acid or how caustic (basic) a substance is on a scale of 1-14. pH 1 indicates that a substance is very acid; pH 7 indicates a neutral substance; pH 14 indicates that a substance is very basic.

## Stability and Reactivity Data

<u>Stability</u>: how readily does it react with other substances listed here should be conditions which may cause dangerous reaction (a shock from being dropped)

<u>Incompatibility</u>: information on common materials and contaminants with which the product may come into contact to produce a reaction

 $\underline{Hazardous\ Polymerization}: a\ rate\ which\ relapses\ large\ amounts\ of\ energy\ -\ consider\ storage\ conditions$ 

<u>Hazardous Decomposition Products</u>: materials produced in dangerous amounts by burning oxidation, or by heating in welding or burning

## Trade Secret

Any confidential formula, patterns, process device, or information that is unique to a company. The manufacturer must provide specific identity of a trade secret if doctor or nurse requests it.

# **APPENDIX B**

# CHEMICAL INFORMATION LIST