

City of Stoughton

Hazard Communications

Adopted 4/08/03

HAZARD COMMUNICATION PROGRAM

GENERAL INFORMATION

In order to comply with the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200; Wisconsin Employee Right-to-Know Law, 1984; and Wisconsin Statutes 101.58-101.599, the following written Hazard Communication Program has been established for the City of Stoughton. The purpose of this policy is to ensure that:

1. Hazardous substances present in the work place are identified and labeled.
2. Employees have ready access to information on the hazards of these substances.
3. Employees are given information on how to prevent injury or illness due to chemical exposure.

This policy applies to all City of Stoughton employees, visitors, and contractors who work with or have exposure to hazardous products or chemicals. This policy is available at City Hall, 381 E. Main Street, Stoughton, WI, as well as at the following departments:

City Clerk's Office

This written program applies to all work operations in the organization where employees may be exposed to hazardous substances under the normal working conditions or during emergency situations. Under this program, employees will be informed of the contents of the Hazard Communication Standard, the hazardous properties of chemicals with which they work, safe handling procedures, and measures to take to protect themselves from these chemicals. Employees will also be informed of the hazards associated with non-routine tasks as they come in contact with them. A copy of OSHA Hazard Communication Standard 29 CFR 1910.1200 can be found in *Appendix A*.

RESPONSIBILITIES

The Risk Manager has overall responsibility for the program.

The Risk Manager and City Clerk are responsible for:

- Reviewing and updating the program to ensure that it satisfies the requirements of all applicable local, state and federal hazard communication requirements (Risk Manager).
- Maintaining a master file of material safety data sheets (MSDS) (City Clerk).
- Maintaining copies of the records of all employees included in the training sessions (City Clerk).

Department heads and supervisors are responsible for:

- Coordinating initial and new chemical training of employees on the Hazard Communication program.
- Reviewing incoming chemical materials to verify correct labeling.
- Contacting vendors to obtain material safety data sheets on chemical products.
- Forwarding copies of material safety data sheets to the City Clerk.
- Maintaining and updating master MSDS files and sheets for all chemicals used in their work environment.
- Responding to any employee concerns or request for information.
- Ensuring that all primary and secondary containers are properly labeled.
- Ensuring employees use chemical products consistent with their intended use.
- Informing outside contractors who are performing work on city property about potential hazards.
- Providing on-going training as new chemicals are introduced into the work site.

All employees are responsible for:

- Following directions in the use and handling of all chemicals as prescribed on the material safety data sheets and instructed by the supervisor.
- Becoming familiar with the information on the material safety data sheets.
- Notifying their supervisor of any condition which may have an adverse impact on employee safety/health.

Outside personnel (Contractors, etc.):

- Department heads and supervisors will advise contractor supervisory personnel of the nature of the hazardous chemicals they may encounter in doing work on city premises. MSDS's will be use/provided as appropriate for this purpose. Contractor supervisory personnel will also be informed that they are required by OSHA regulations to instruct their employees relative to hazardous chemicals they use.

HAZARD ANALYSIS

Each chemical in the workplace shall be evaluated for hazardous properties.

- Hazardous properties include toxicity, corrosivity, irritation effects, sensitization potential, flammability, instability, oxidizing effects and reactivity.
- Resources to be used in the hazard review include vendor MSDS's and other internal and literature sources.

MATERIAL SAFETY DATA SHEETS (MSDS)

A material safety data sheet (MSDS) is a technical report that explains how to use, handle and store chemicals safely. There is no standard format used for MSDS's, but what is consistent on them is the information which must be contained on a MSDS (see Appendix B). The Building Inspection Department will maintain a binder in its office with a MSDS on every substance on the list of hazardous chemicals. The MSDS will be a fully completed OSHA Form 174 or equivalent. Each department head will ensure that each department maintains a MSDS for each hazardous material in their particular area(s). MSDS's will be made readily available to all employees during their shifts.

A master list of MSDS's is available from the Building Inspection Office.

LIST OF HAZARDOUS CHEMICALS

An inventory of hazardous substances has been compiled. The master inventory list is kept in the Building Inspection Office. The list is readily available and accessible for review. The Maintenance Department is responsible for maintaining the master list of hazardous substances and updating the list as necessary. One list of chemicals identifies all of the chemicals used in each of the various departments and is available in each department. Each list also identifies the corresponding MSDS for each chemical. A master list of these chemicals will be maintained by, and is available from the Building Inspection Office.

A list of all hazardous chemicals known to be present within city buildings is found in *Appendix C*. Further information on each listed chemical can be obtained by reviewing the MSDS's.

LABELING

Container labels are the first and easiest place to look to see if the material an individual is working with is hazardous. Labels can quickly inform people what they need to know in order to properly protect themselves. Labeling procedures and policies are as follows:

- The supervisor responsible for receiving shipments will evaluate labels on incoming containers and each label will be checked for:
 1. Identity of substance.
 2. Appropriate hazard warning.
 3. Name and address of the manufacturer.
- If the label is not appropriate, the supervisor in the receiving department will notify the manufacturer or distributor.
- If the label is not received within 30 days of the initial notification, the supervisor in the receiving department will send a second request to the manufacturer or distributor.

- If an appropriate label is not received after the second 30 days, the Department Head will direct the appropriate supervisor to obtain and place on the container an appropriate label that has not yet been received from the manufacturer.
- The supervisor responsible for ordering/receiving shipments will be responsible for updating labels when new information is received.
- Labels will be removed if they are incorrect and when the container is empty if it will be used for other materials. All supervisors are responsible for seeing that all containers used in their departments are labeled properly and remain legible.
- Unlabeled transfer containers, such as pail and buckets will only be used by one employee and will be emptied at the end of each shift.
- Piping systems shall:
 1. Be labeled at access points and every ten feet where the piping is eight feet or closer to employee contact.
 2. Be labeled as follows:

<u>Substance</u>	<u>Color</u>
a) Materials Hazardous to Life and Property	Yellow
b) Fire Protective Materials	Red
c) Low Hazard Liquids	Green
d) Low Hazard Gases	Blue
 3. Include, in the appropriate background the materials contained in the piping and the direction the material is flowing.

EMPLOYEE TRAINING

The Hazard Communication Standard requires that employers provide employees with information regarding hazardous chemicals in their work area. All affected employees will be trained and informed at the time of initial assignment on the Hazard Communication Standard and whenever a new hazard is introduced into the work place. Department heads and supervisors will be trained regarding hazards and appropriate protective measures so they will be available to answer questions from employees and provide daily monitoring of safe work practices.

Objectives of the employee training program are as follows:

- Increase employee awareness of chemicals and other hazardous materials in their work area.
- Teach employees how to read material safety data sheets.
- Detail the Hazard Communication Standard pertaining to employees and their workplace environment.
- Assist employees in understanding standard and in-house labeling systems.
- Instruct employees regarding the hazards involved with non-routine tasks.

Before exposure to a chemical, each new employee, who is exposed or potentially exposed to hazardous chemicals, will receive information and training that includes the following:

- Employees will have access to the written Hazard Communication Program and informed of its location.
- Employees will be trained to read and understand material safety data sheets, including: chemical and physical properties of hazardous materials (i.e.: flash point, reactivity); physical hazards of chemicals (i.e.: potential for fire, explosion); and health hazards, including signs and symptoms associated with exposure to chemicals and any condition known to be aggravated by exposure to the chemical.
- Employees will be instructed where material safety data sheets are located.
- Employees will be trained to read and understand a label.
- Employees will be trained in how to handle hazardous chemicals used in their work area and chemicals encountered when performing non-routine tasks.
- Employees will be trained in the proper use, storage, and handling of personal protective equipment.
- Employees will be instructed on work procedures to follow to assure their protection when cleaning hazardous chemical spills and leaks.
- Employees will be instructed where medical supplies and safety equipment are kept.

Each department will review the training program on an annual basis and determine the appropriate levels of training and re-training. Retraining is required when the hazard changes or when a new hazard is introduced into the work place. It will be city policy to provide training regularly to ensure the effectiveness of the program. As part of the assessment of the training program, employee input will be obtained regarding the training they have received and their suggestions for improving it.

HAZARDOUS NON-ROUTINE TASKS

Periodically, employees are required to perform non-routine, hazardous tasks (i.e.: cleaning tanks, entering confined spaces, etc..). Prior to starting work on such projects, each affected employee will be given information by their supervisor about hazardous products to which they may be exposed during such activities. This information will include:

1. Specific chemical hazards and review of specific MSDS.
2. Protective safety measures the employee can take.
3. Measures the department has taken to reduce the hazards, including but not limited to: ventilation, respiratory protection, presence of another employee, and the establishment of emergency response procedures.

CONTRACTORS

It is the responsibility of the department head to provide any outside contractors who are working for the affected department with the following information:

1. Hazardous chemicals which the contractors and their employees may be exposed to while on the job site.
2. Precautions the employees may take to reduce the possibility of exposure, such as using appropriate protective measures and proper handling procedures.

The department head will be responsible for contacting each contractor before work is started in the department to gather and disseminate any information concerning chemical hazards that the contractor is bringing into the work place.

RECORDKEEPING

All material safety data sheets will be kept for a period of thirty (30) years after the use of the product has been discontinued. In addition, all inventory lists will be kept for a period of thirty (30) years.

PROGRAM EVALUATION

The program shall be evaluated on an annual basis by the Coordinator or designated personnel.

APPENDIX A

OSHA STANDARD 1910.1200

HAZARD COMMUNICATION

TITLE 29--LABOR CHAPTER XVII--OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION,
DEPARTMENT OF LABOR PART 1910--OCCUPATIONAL SAFETY AND HEALTH STANDARDS

Table of Contents Subpart Z--Toxic and Hazardous Substances Sec. 1910.1200 Hazard communication.

(a) Purpose.

- (1) The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.
- (2) This occupational safety and health standard is intended to address comprehensively the issue of evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legal requirements of a state, or political subdivision of a state, pertaining to this subject. Evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped to other workplaces; preparation and distribution of material safety data sheets to employees and downstream employers; and development and implementation of employee training programs regarding hazards of chemicals and protective measures. Under section 18 of the Act, no state or political subdivision of a state may adopt or enforce, through any court or agency, any requirement relating to the issue addressed by this Federal standard, except pursuant to a Federally-approved state plan.

(b) Scope and application.

- (1) This section requires chemical manufacturers or importers to assess the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers. Appendix E of this section is a general guide for such employers to help them determine their compliance obligations under the rule.)
- (2) This section applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.
- (3) This section applies to laboratories only as follows:
 - (i) Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;
 - (ii) Employers shall maintain any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each workshift to laboratory employees when they are in their work areas;
 - (iii) Employers shall ensure that laboratory employees are provided information and training in accordance with paragraph (h) of this section, except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section; and,
 - (iv) Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or

- (vi) Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;
- (vii) Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), when it is in solid, final form for direct administration to the patient (e.g., tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (e.g., over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (e.g., first aid supplies);
- (viii) Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;
- (ix) Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;
- (x) Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;
- (xi) Ionizing and nonionizing radiation; and,
- (xii) Biological hazards.

(c) Definitions.

Article means a manufactured item other than a fluid or particle:

- (i) which is formed to a specific shape or design during manufacture;
- (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
- (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any element, chemical compound or mixture of elements and/or compounds.

Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

Chemical name means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

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

Commercial account means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

Common name means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

Compressed gas means:

- (i) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg.F (21.1 deg.C); or

- (ii) Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7- 1979 (ASTM D 93-79)) for liquids with a viscosity equal to or greater than 45 SUS at 100 deg.F (37.8 deg.C), or that contain suspended solids, or that have a tendency to form a surface film under test; or
- (iii) Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)). Organic peroxides, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazardous chemical means any chemical which is a physical hazard or a health hazard.

Hazard warning means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See the definitions for "physical hazard" and "health hazard" to determine the hazards which must be covered.)

Health hazard means 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. The term "health hazard" includes chemicals which are 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. Appendix A provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard.

Identity means any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

Immediate use means that the hazardous 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.

Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

Label means any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

Material safety data sheet (MSDS) means written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of this section.

Mixture means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

Organic peroxide means an organic compound that contains the bivalent -O-O-structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer means a chemical other than a blasting agent or explosive as defined in Sec. 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

- (i) National Toxicology Program (NTP), Annual Report on Carcinogens (latest edition);
 - (ii) International Agency for Research on Cancer (IARC) Monographs (latest editions); or
 - (iii) 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration. Note: The Registry of Toxic Effects of Chemical Substances published by the National Institute for Occupational Safety and Health indicates whether a chemical has been found by NTP or IARC to be a potential carcinogen.
- (5) The chemical manufacturer, importer or employer shall determine the hazards of mixtures of chemicals as follows:
- (i) If a mixture has been tested as a whole to determine its hazards, the results of such testing shall be used to determine whether the mixture is hazardous;
 - (ii) If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen under paragraph (d)(4) of this section;
 - (iii) If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the chemical manufacturer, importer, or employer may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture; and,
 - (iv) If the chemical manufacturer, importer, or employer has evidence to indicate that a component present in the mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees in those concentrations, the mixture shall be assumed to present the same hazard.
- (6) Chemical manufacturers, importers, or employers evaluating chemicals shall describe in writing the procedures they use to determine the hazards of the chemical they evaluate. The written procedures are to be made available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director. The written description may be incorporated into the written hazard communication program required under paragraph (e) of this section.
- (e) Written hazard communication program.
- (1) Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, material safety data sheets, and employee information and training will be met, and which also includes the following:
- (i) A list of the hazardous chemicals known to be present using an identity that is referenced on the appropriate material safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas); and,
 - (ii) The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.
- (2) Multi-employer workplaces. Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:
- (i) The methods the employer will use to provide the other employer(s) on-site access to material safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;
 - (ii) The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,
 - (iii) The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.

direct administration to a patient are exempted from labeling.

- (8) The employer shall not remove or deface existing labels on incoming containers of hazardous chemicals, unless the container is immediately marked with the required information.
- (9) The employer shall ensure that labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well.
- (10) The chemical manufacturer, importer, distributor or employer need not affix new labels to comply with this section if existing labels already convey the required information.
- (11) Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within three months of becoming aware of the new information. Labels on containers of hazardous chemicals shipped after that time shall contain the new information. If the chemical is not currently produced or imported, the chemical manufacturer, importers, distributor, or employer shall add the information to the label before the chemical is shipped or introduced into the workplace again.

(g) Material safety data sheets.

- (1) Chemical manufacturers and importers shall obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Employers shall have a material safety data sheet in the workplace for each hazardous chemical which they use.
- (2) Each material safety data sheet shall be in English (although the employer may maintain copies in other languages as well), and shall contain at least the following information:
 - (i) The identity used on the label, and, except as provided for in paragraph (i) of this section on trade secrets:
 - (A) If the hazardous chemical is a single substance, its chemical and common name(s);
 - (B) If the hazardous chemical is a mixture which has been tested as a whole to determine its hazards, the chemical and common name(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or,
 - (C) If the hazardous chemical is a mixture which has not been tested as a whole:
 - (1) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that chemicals identified as carcinogens under paragraph (d) of this section shall be listed if the concentrations are 0.1% or greater; and,
 - (2) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise less than 1% (0.1% for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees; and,
 - (3) The chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture;
 - (ii) Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point);
 - (iii) The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity;
 - (iv) The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical;
 - (v) The primary route(s) of entry;
 - (vi) The OSHA permissible exposure limit, ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the material safety data sheet, where available;
 - (vii) Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Annual Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions), or by OSHA;

- (vi) Wholesale distributors shall also provide material safety data sheets to employers or other distributors upon request; and,
 - (vii) Chemical manufacturers, importers, and distributors need not provide material safety data sheets to retail distributors that have informed them that the retail distributor does not sell the product to commercial accounts or open the sealed container to use it in their own workplaces.
- (8) The employer shall maintain in the workplace copies of the required material safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.)
- (9) Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the material safety data sheets may be kept at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.
- (10) Material safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous chemicals in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous chemicals. However, the employer shall ensure that in all cases the required information is provided for each hazardous chemical, and is readily accessible during each work shift to employees when they are in their work area(s).
- (11) Material safety data sheets shall also be made readily available, upon request, to designated representatives and to the Assistant Secretary, in accordance with the requirements of 29 CFR 1910.20(e). The Director shall also be given access to material safety data sheets in the same manner.
- (h) Employee information and training.
- (1) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets.
- (2) Information. Employees shall be informed of:
- (i) The requirements of this section;
 - (ii) Any operations in their work area where hazardous chemicals are present; and,
 - (iii) The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and material safety data sheets required by this section.
- (3) Training. Employee training shall include at least:
- (i) Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
 - (ii) The physical and health hazards of the chemicals in the work area;
 - (iii) The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,
 - (iv) The details of the hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
- (i) Trade secrets.

- (iii) May not include requirements for the posting of a penalty bond.
- (5) Nothing in this standard is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.
- (6) If the health professional, employee, or designated representative receiving the trade secret information decides that there is a need to disclose it to OSHA, the chemical manufacturer, importer, or employer who provided the information shall be informed by the health professional, employee, or designated representative prior to, or at the same time as, such disclosure.
- (7) If the chemical manufacturer, importer, or employer denies a written request for disclosure of a specific chemical identity, the denial must:
 - (i) Be provided to the health professional, employee, or designated representative, within thirty days of the request;
 - (ii) Be in writing;
 - (iii) Include evidence to support the claim that the specific chemical identity is a trade secret;
 - (iv) State the specific reasons why the request is being denied; and,
 - (v) Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the specific chemical identity.
- (8) The health professional, employee, or designated representative whose request for information is denied under paragraph (i)(3) of this section may refer the request and the written denial of the request to OSHA for consideration.
- (9) When a health professional, employee, or designated representative refers the denial to OSHA under paragraph (i)(8) of this section, OSHA shall consider the evidence to determine if:
 - (i) The chemical manufacturer, importer, or employer has supported the claim that the specific chemical identity is a trade secret;
 - (ii) The health professional, employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and,
 - (iii) The health professional, employee or designated representative has demonstrated adequate means to protect the confidentiality.
- (10)(i) If OSHA determines that the specific chemical identity requested under paragraph (i)(3) of this section is not a bona fide trade secret, or that it is a trade secret, but the requesting health professional, employee, or designated representative has a legitimate medical or occupational health need for the information, has executed a written confidentiality agreement, and has shown adequate means to protect the confidentiality of the information, the chemical manufacturer, importer, or employer will be subject to citation by OSHA.
 - (ii) If a chemical manufacturer, importer, or employer demonstrates to OSHA that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret specific chemical identity, the Assistant Secretary may issue such orders or impose such additional limitations or conditions upon the disclosure of the requested chemical information as may be appropriate to assure that the occupational health services are provided without an undue risk of harm to the chemical manufacturer, importer, or employer.
- (11) If a citation for a failure to release specific chemical identity information is contested by the chemical manufacturer, importer, or employer, the matter will be adjudicated before the Occupational Safety and Health Review Commission in accordance with the Act's enforcement scheme and the applicable Commission rules of procedure. In accordance with the Commission rules, when a chemical manufacturer, importer, or employer continues to withhold the information during the contest, the Administrative Law Judge may review the citation and supporting documentation in camera or issue appropriate orders to protect the confidentiality of such matters.
- (12) Notwithstanding the existence of a trade secret claim, a chemical manufacturer, importer, or employer shall, upon request, disclose to the Assistant Secretary any information which this section requires the chemical manufacturer, importer, or employer to make available. Where there is a trade secret claim, such claim shall be

Appendix A to Sec. 1910.1200--Health Hazard Definitions (Mandatory)

INTRODUCTION

Although safety hazards related to the physical characteristics of a chemical can be objectively defined in terms of testing requirements (e.g. flammability), health hazard definitions are less precise and more subjective. Health hazards may cause measurable changes in the body-- such as decreased pulmonary function. These changes are generally indicated by the occurrence of signs and symptoms in the exposed employees--such as shortness of breath, a non-measurable, subjective feeling. Employees exposed to such hazards must be apprised of both the change in body function and the signs and symptoms that may occur to signal that change.

The determination of occupational health hazards is complicated by the fact that many of the effects or signs and symptoms occur commonly in non-occupationally exposed populations, so that effects of exposure are difficult to separate from normally occurring illnesses. Occasionally, a substance causes an effect that is rarely seen in the population at large, such as angiosarcomas caused by vinyl chloride exposure, thus making it easier to ascertain that the occupational exposure was the primary causative factor. More often, however, the effects are common, such as lung cancer. The situation is further complicated by the fact that most chemicals have not been adequately tested to determine their health hazard potential, and data do not exist to substantiate these effects.

There have been many attempts to categorize effects and to define them in various ways. Generally, the terms "acute" and "chronic" are used to delineate between effects on the basis of severity or duration. "Acute" effects usually occur rapidly as a result of short-term exposures, and are of short duration. "Chronic" effects generally occur as a result of long-term exposure, and are of long duration.

The acute effects referred to most frequently are those defined by the American National Standards Institute (ANSI) standard for Precautionary Labeling of Hazardous Industrial Chemicals (Z129.1-1988)-- irritation, corrosivity, sensitization and lethal dose. Although these are important health effects, they do not adequately cover the considerable range of acute effects which may occur as a result of occupational exposure, such as, for example, narcosis.

Similarly, the term chronic effect is often used to cover only carcinogenicity, teratogenicity, and mutagenicity. These effects are obviously a concern in the workplace, but again, do not adequately cover the area of chronic effects, excluding, for example, blood dyscrasias (such as anemia), chronic bronchitis and liver atrophy.

The goal of defining precisely, in measurable terms, every possible health effect that may occur in the workplace as a result of chemical exposures cannot realistically be accomplished. This does not negate the need for employees to be informed of such effects and protected from them. Appendix B, which is also mandatory, outlines the principles and procedures of hazard assessment.

HEALTH HAZARD DEFINITIONS

For purposes of this section, any chemicals which meet any of the following definitions, as determined by the criteria set forth in Appendix B are health hazards. However, this is not intended to be an exclusive categorization scheme. If there are available scientific data that involve other animal species or test methods, they must also be evaluated to determine the applicability of the HCS.

1. Carcinogen: A chemical is considered to be a carcinogen if:
 - (a) It has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or
 - (b) It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or,
 - (c) It is regulated by OSHA as a carcinogen.
2. Corrosive: A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described by the U.S. Department of Transportation in appendix A to 49

Chemicals: Silica; asbestos

f. Reproductive toxins: Chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis)

Signs & Symptoms: Birth defects; sterility

Chemicals: Lead; DBCP

g. Cutaneous hazards: Chemicals which affect the dermal layer of the body

Signs & Symptoms: Defatting of the skin; rashes; irritation

Chemicals: Ketones; chlorinated compounds

h. Eye hazards: Chemicals which affect the eye or visual capacity

Signs & Symptoms: Conjunctivitis; corneal damage

Chemicals: Organic solvents; acids

Appendix C to Sec. 1910.1200 [Reserved]

Appendix D to Sec. 1910.1200--Definition of "Trade Secret" (Mandatory)

The following is a reprint of the Restatement of Torts section 757, comment b (1939):

b. Definition of trade secret. A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers. It differs from other secret information in a business (see s759 of the Restatement of Torts which is not included in this Appendix) in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model or the like. A trade secret is a process or device for continuous use in the operations of the business. Generally it relates to the production of goods, as, for example, a machine or formula for the production of an article. It may, however, relate to the sale of goods or to other operations in the business, such as a code for determining discounts, rebates or other concessions in a price list or catalogue, or a list of specialized customers, or a method of bookkeeping or other office management.

"Secrecy." The subject matter of a trade secret must be secret. Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret. Matters which are completely disclosed by the goods which one markets cannot be his secret. Substantially, a trade secret is known only in the particular business in which it is used. It is not requisite that only the proprietor of the business know it. He may, without losing his protection, communicate it to employees involved in its use. He may likewise communicate it to others pledged to secrecy. Others may also know of it independently, as, for example, when they have discovered the process or formula by independent invention and are keeping it secret. Nevertheless, a substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring the information. An exact definition of a trade secret is not possible. Some factors to be considered in determining whether given information is one's trade secret are: (1) The extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

"Novelty and prior art." A trade secret may be a device or process which is patentable; but it need not be that. It may be a device or process which is clearly anticipated in the prior art or one which is merely a mechanical improvement that a good mechanic can make. Novelty and invention are not requisite for a trade secret as they are for patentability. These requirements are essential to patentability because a patent protects against unlicensed use of the patented device or process even by one who discovers it properly through independent research. The patent monopoly is a reward to the inventor. But such is not the case with a trade secret. Its protection is not based on a policy of rewarding or otherwise encouraging the development of secret processes or devices. The protection is merely against breach of faith and reprehensible means of learning another's secret. For this limited protection it is not appropriate to require also the kind of novelty and invention which is a requisite of patentability. The nature of the secret is, however, an important factor in determining the kind of relief that is appropriate against one who is subject to liability under the rule stated in this Section. Thus, if the secret consists of a device or process which is a novel invention, one who acquires the secret wrongfully is ordinarily enjoined from further use of it and is required to account for the profits derived from his past use. If, on the other hand, the secret consists of mechanical improvements that a good mechanic can make without resort to the secret, the wrongdoer's liability may be limited to damages, and an injunction against future use of the improvements made with the aid of the secret may be inappropriate.

safety data sheet (MSDS) at the time of the first shipment of the chemical, and with the next shipment after the MSDS is updated with new and significant information about the hazards.

You can rely on the information received from your suppliers. You have no independent duty to analyze the chemical or evaluate the hazards of it.

Employers that "use" hazardous chemicals must have a program to ensure the information is provided to exposed employees. "Use" means to package, handle, react, or transfer. This is an intentionally broad scope, and includes any situation where a chemical is present in such a way that employees may be exposed under normal conditions of use or in a foreseeable emergency.

The requirements of the rule that deal specifically with the hazard communication program are found in this section in paragraphs (e), written hazard communication program; (f), labels and other forms of warning; (g), material safety data sheets; and (h), employee information and training. The requirements of these paragraphs should be the focus of your attention. Concentrate on becoming familiar with them, using paragraphs (b), scope and application, and (c), definitions, as references when needed to help explain the provisions.

There are two types of work operations where the coverage of the rule is limited. These are laboratories and operations where chemicals are only handled in sealed containers (e.g., a warehouse). The limited provisions for these workplaces can be found in paragraph (b) of this section, scope and application. Basically, employers having these types of work operations need only keep labels on containers as they are received; maintain material safety data sheets that are received, and give employees access to them; and provide information and training for employees. Employers do not have to have written hazard communication programs and lists of chemicals for these types of operations.

The limited coverage of laboratories and sealed container operations addresses the obligation of an employer to the workers in the operations involved, and does not affect the employer's duties as a distributor of chemicals. For example, a distributor may have warehouse operations where employees would be protected under the limited sealed container provisions. In this situation, requirements for obtaining and maintaining MSDSs are limited to providing access to those received with containers while the substance is in the workplace, and requesting MSDSs when employees request access for those not received with the containers. However, as a distributor of hazardous chemicals, that employer will still have responsibilities for providing MSDSs to downstream customers at the time of the first shipment and when the MSDS is updated. Therefore, although they may not be required for the employees in the work operation, the distributor may, nevertheless, have to have MSDSs to satisfy other requirements of the rule.

2. Identify Responsible Staff

Hazard communication is going to be a continuing program in your facility. Compliance with the HCS is not a "one shot deal." In order to have a successful program, it will be necessary to assign responsibility for both the initial and ongoing activities that have to be undertaken to comply with the rule. In some cases, these activities may already be part of current job assignments. For example, site supervisors are frequently responsible for on-the-job training sessions. Early identification of the responsible employees, and involvement of them in the development of your plan of action, will result in a more effective program design. Evaluation of the effectiveness of your program will also be enhanced by involvement of affected employees.

For any safety and health program, success depends on commitment at every level of the organization. This is particularly true for hazard communication, where success requires a change in behavior. This will only occur if employers understand the program, and are committed to its success, and if employees are motivated by the people presenting the information to them.

3. Identify Hazardous Chemicals in the Workplace.

The standard requires a list of hazardous chemicals in the workplace as part of the written hazard communication program. The list will eventually serve as an inventory of everything for which an MSDS must be maintained. At

Although such general guidance may be helpful, you must remember that the written program has to reflect what you are doing in your workplace. Therefore, if you use a generic program it must be adapted to address the facility it covers. For example, the written plan must list the chemicals present at the site, indicate who is to be responsible for the various aspects of the program in your facility, and indicate where written materials will be made available to employees.

If OSHA inspects your workplace for compliance with the HCS, the OSHA compliance officer will ask to see your written plan at the outset of the inspection. In general, the following items will be considered in evaluating your program.

The written program must describe how the requirements for labels and other forms of warning, material safety data sheets, and employee information and training, are going to be met in your facility. The following discussion provides the type of information compliance officers will be looking for to decide whether these elements of the hazard communication program have been properly addressed:

A. Labels and Other Forms of Warning

In-plant containers of hazardous chemicals must be labeled, tagged, or marked with the identity of the material and appropriate hazard warnings. Chemical manufacturers, importers, and distributors are required to ensure that every container of hazardous chemicals they ship is appropriately labeled with such information and with the name and address of the producer or other responsible party. Employers purchasing chemicals can rely on the labels provided by their suppliers. If the material is subsequently transferred by the employer from a labeled container to another container, the employer will have to label that container unless it is subject to the portable container exemption. See paragraph (f) of this section for specific labeling requirements.

The primary information to be obtained from an OSHA-required label is an identity for the material, and appropriate hazard warnings. The identity is any term which appears on the label, the MSDS, and the list of chemicals, and thus links these three sources of information. The identity used by the supplier may be a common or trade name ("Black Magic Formula"), or a chemical name (1,1,1-trichloroethane). The hazard warning is a brief statement of the hazardous effects of the chemical ("flammable," "causes lung damage"). Labels frequently contain other information, such as precautionary measures ("do not use near open flame"), but this information is provided voluntarily and is not required by the rule. Labels must be legible, and prominently displayed. There are no specific requirements for size or color, or any specified text.

With these requirements in mind, the compliance officer will be looking for the following types of information to ensure that labeling will be properly implemented in your facility:

1. Designation of person(s) responsible for ensuring labeling of in-plant containers;
2. Designation of person(s) responsible for ensuring labeling of any shipped containers;
3. Description of labeling system(s) used;
4. Description of written alternatives to labeling of in-plant containers (if used); and,
5. Procedures to review and update label information when necessary.

Employers that are purchasing and using hazardous chemicals--rather than producing or distributing them--will primarily be concerned with ensuring that every purchased container is labeled. If materials are transferred into other containers, the employer must ensure that these are labeled as well, unless they fall under the portable container exemption (paragraph (f)(7) of this section). In terms of labeling systems, you can simply choose to use the labels provided by your suppliers on the containers. These will generally be verbal text labels, and do not usually include numerical rating systems or symbols that require special training. The most important thing to remember is that this is a continuing duty--all in-plant containers of hazardous chemicals must always be labeled. Therefore, it is important to designate someone to be responsible for ensuring that the labels are maintained as required on the containers in your facility, and that newly purchased materials are checked for labels prior to use.

B. Material Safety Data Sheets

Chemical manufacturers and importers are required to obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Distributors are responsible for ensuring that their customers are

carcinogenicity). If there are only a few chemicals in the workplace, then you may want to discuss each one individually. Where there are large numbers of chemicals, or the chemicals change [[Page 482]] frequently, you will probably want to train generally based on the hazard categories (e.g., flammable liquids, corrosive materials, carcinogens). Employees will have access to the substance-specific information on the labels and MSDSs.

Information and training is a critical part of the hazard communication program. Information regarding hazards and protective measures are provided to workers through written labels and material safety data sheets. However, through effective information and training, workers will learn to read and understand such information, determine how it can be obtained and used in their own workplaces, and understand the risks of exposure to the chemicals in their workplaces as well as the ways to protect themselves. A properly conducted training program will ensure comprehension and understanding. It is not sufficient to either just read material to the workers, or simply hand them material to read. You want to create a climate where workers feel free to ask questions. This will help you to ensure that the information is understood. You must always remember that the underlying purpose of the HCS is to reduce the incidence of chemical source illnesses and injuries. This will be accomplished by modifying behavior through the provision of hazard information and information about protective measures. If your program works, you and your workers will better understand the chemical hazards within the workplace. The procedures you establish regarding, for example, purchasing, storage, and handling of these chemicals will improve, and thereby reduce the risks posed to employees exposed to the chemical hazards involved. Furthermore, your workers' comprehension will also be increased, and proper work practices will be followed in your workplace.

If you are going to do the training yourself, you will have to understand the material and be prepared to motivate the workers to learn. This is not always an easy task, but the benefits are worth the effort. More information regarding appropriate training can be found in OSHA Publication No. 2254 which contains voluntary training guidelines prepared by OSHA's Training Institute. A copy of this document is available from OSHA's Publications Office at (202) 219-4667. In reviewing your written program with regard to information and training, the following items need to be considered:

1. Designation of person(s) responsible for conducting training;
2. Format of the program to be used (audiovisuals, classroom instruction, etc.);
3. Elements of the training program (should be consistent with the elements in paragraph (h) of this section); and,
4. Procedure to train new employees at the time of their initial assignment to work with a hazardous chemical, and to train employees when a new hazard is introduced into the workplace.

The written program should provide enough details about the employer's plans in this area to assess whether or not a good faith effort is being made to train employees. OSHA does not expect that every worker will be able to recite all of the information about each chemical in the workplace. In general, the most important aspects of training under the HCS are to ensure that employees are aware that they are exposed to hazardous chemicals, that they know how to read and use labels and material safety data sheets, and that, as a consequence of learning this information, they are following the appropriate protective measures established by the employer. OSHA compliance officers will be talking to employees to determine if they have received training, if they know they are exposed to hazardous chemicals, and if they know where to obtain substance-specific information on labels and MSDSs.

The rule does not require employers to maintain records of employee training, but many employers choose to do so. This may help you monitor your own program to ensure that all employees are appropriately trained. If you already have a training program, you may simply have to supplement it with whatever additional information is required under the HCS. For example, construction employers that are already in compliance with the construction training standard (29 CFR 1926.21) will have little extra training to do.

An employer can provide employees information and training through whatever means are found appropriate and protective. Although there would always have to be some training on-site (such as informing employees of the location and availability of the written program and MSDSs), employee training may be satisfied in part by general training about the requirements of the HCS and about chemical hazards on the job which is provided by, for example, trade associations, unions, colleges, and professional schools. In addition, previous training, education and experience of a worker may relieve the employer of some of the burdens of informing and training that worker. Regardless of the method relied upon, however, the employer is always ultimately responsible for ensuring that

APPENDIX B

MATERIAL SAFETY DATA SHEET

CUSTOMER: T0152574 ORDER # : 0222@
 BATCH #: 960420022 STICKER #: 960420542
 ZONE #: CSE2
 BARCODE NUMBER: 1Z7500950500873081
 PRODUCT NAME: ~~BLOT!~~

MATERIAL SAFETY DATA SHEET : BLOT! PAGE : 1
 -5878 | DATE OF ISSUE 11/22/94 | SUPERSEDES 11/21/94

SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS: N/A TRADE NAME & SYNONYMS: BLOT!
 CHEMICAL FAMILY: THIOSULFATE SOLUTION FORMULA: X <--MIXTURE
 MANUFACTURE'S NAME: CERTIFIED LABS, DIV. OF NCH CORP.
 ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE):
 BOX 152170
 IRVING, TEXAS 75015
 PREPARED BY: R STOLLEY/CHEMIST PRODUCT CODE NUMBER: 5878 EMERGENCY TELEPHONE NUMBER: 214-438-1381

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

CHEMICAL NAME (INGREDIENTS):
 SODIUM THIOSULFATE PENTAHYDRATE
 HAZARD---->IRRITANT TLV--->NOT EST. 1 PEL--->NOT EST. 2
 STEL(TWA)*->NOT EST. CAS#-->10102-17-7
 SODIUM LAURYL SULFATE
 HAZARD---->IRRITANT TLV--->NOT EST. 1 PEL--->NOT EST. 2
 STEL(TWA)*->NOT EST. CAS#-->151-21-3

SECTION IIA - NON-HAZARDOUS INGREDIENTS
 NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE
 SECRET REGISTRY # 499363-5401F

SECTION III - PHYSICAL DATA

BOILING PT. (F) | 212 | SPEC. GRAVITY (H2O=1) | 1.025
 VAPOR PR. (MM HG) | 18 | COLOR | WATER-WHITE
 VAPOR DENSITY | 0.6 | ODOR | BABY POWDER
 PH. @ 100% | 8.5 | CLARITY | TRANSPARENT
 % VOLATILE BY VOL | 96 | EVAPORATION RATE (BU A/C = 1) | 0.10
 H2O SOLUBILITY | COMPLETE
 VISCOSITY | NON-VISCOUS

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED) | NON-FLAM T.C.C. | FLAMMABLE LIMITS | LEL | UEL
 N/A | N/A
 EXTINGUISHING MEDIA "ALCOHOL" | DRY | WATER
 X <--FOAM X <--FOAM X <--CO2 X <--CHEMICAL X <--SPRAY <--OTHER
 SPECIAL FIRE FIGHTING PROCEDURES
 PRODUCT IS NON-FLAMMABLE. CHOOSE EXTINGUISHING MEDIA APPROPRIATE FOR THE SURROUNDING FIRE. IN ALL FIRES INVOLVING CHEMICALS, WEAR A SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.
 UNUSUAL FIRE AND EXPLOSION HAZARDS
 SODIUM SULFIDE (THERMAL DECOMPOSITION PRODUCT) IS FLAMMABLE AND A STRONG IRRITANT TO TISSUE. INCOMPATIBLE WITH ACIDS. TEMPERATURES > 212 F. CAN YIELD SULFUR DIOXIDE.
 NFPA HAZARD RATING (0=INSIGNIFICANT;1=SLIGHT;2=MODERATE;3=HIGH;4=EXTREME):
 1 <--HEALTH 1 <--FLAMMABILITY 0 <--REACTIVITY <--SPECIAL

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:
 NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

SECTION VIII - SPILL OR LEAK PROCEDURES (CONTINUED)

FLUSH SURFACE WITH LARGE VOLUMES OF WATER & FLUSH DOWN DRAIN IF PERMITTED BY APPLICABLE DISPOSAL REGULATIONS. WASTE MATERIALS MIGHT HAVE TO BE DISPOSED OF BY AN APPROVED CONTRACTOR.

WASTE DISPOSAL METHOD(S):
DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

NEUTRALIZING AGENT :
FLUSH WITH LARGE AMOUNTS OF WATER.

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION :
GENERAL EXHAUST IS ADEQUATE.

RESPIRATORY PROTECTION :
IF MISTY CONDITIONS PREVAIL, WEAR NIOSH APPROVED MIST RESPIRATOR.

GLOVE PROTECTION :
NOT NORMALLY REQUIRED WITH TYPICAL USE OF THE PRODUCT.

EYE PROTECTION :
SAFETY GLASSES IF THE METHOD OF APPLICATION PRESENTS THE LIKELIHOOD OF EYE CONTACT.

OTHER PROTECTION :
N/A

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE	INDOOR	HEATED	REFRIGERATED	OUTDOOR
MAX: 120°F. MIN: 32°F.	X			X

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING
STORE AT MODERATE TEMPERATURES. KEEP BELOW 212°F.

OTHER PRECAUTIONS
KEEP OUT OF REACH OF CHILDREN.
READ THE ENTIRE LABEL BEFORE USING THIS PRODUCT.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME	C.A.S NUMBER	UPPER & LIMIT
N/A		

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

IF UE (USE EXEMPTION) APPEARS UNDER UPPER & LIMIT, END USERS ARE EXEMPT FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE JANITORIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND LABELED FOR MAINTAINING MOTOR VEHICLES.

CALIFORNIA PROPOSITION 65

WARNING: THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE (1) CANCER OR (2) BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM:
NONE

SECTION XII - TRANSPORTATION * (FOR FUTURE USE)

LABELS	LIMITED QTY
UNIT CONTAINER	
DOT SPS CONTAINER	NET EXPLOSIVE WT.
AEROSOL PROPELLANT(S)	



MATERIAL SAFETY DATA SHEET

DEFINITION OF ABBREVIATIONS:	
N/A	NOT APPLICABLE
UNK	UNKNOWN
NE	NOT ESTABLISHED

SECTION I

MANUFACTURER:

misco INTERNATIONAL, INC.®
 115 Messner Dr., Wheeling, Illinois 60090

PREPARATION DATE September 1991
 DATE SENT TO CUSTOMER
 INFORMATION PHONE NO..... 708-537-9400
 CHEMTREC 1-800-424-9300

CUSTOMER:

HAZARD RATINGS

HEALTH : 2 FLAMMABILITY..... : 0
 REACTIVITY : 1 SPECIAL HAZARD : 0

SECTION II PRODUCT IDENTITY

TRADE NAME & SYN : **BLUE-GREEN**
 DOT SHIPPING NAME..... : Compound, Cleaning Liquid, Corrosive Material Containing Hydrochloric Acid NA-1789
 DOT/HAZARD CLASS..... : Corrosive

SECTION III HAZARDOUS INGREDIENTS

AS ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS AND/OR STANDARDS PROMULGATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

COMPONENT	OSHA PEL	ACGIH TLV	APPROX %:
HYDROCHLORIC ACID (CAS# 7647-01-0)	N/A	5 ppm	8.0

SUPPLIER NOTIFICATION

This is to notify you that our product

BLUE-GREEN

contains the following specific component(s) contained in Table III from Section 313 of the Emergency Planning and Community Right-To-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986.)

INGREDIENT	CAS NUMBER	% IN PRODUCT
HYDROCHLORIC ACID	7647-01-0	8.0

SECTION IIIA NON-HAZARDOUS INGREDIENTS

THESE INGREDIENTS ARE NOT CONSIDERED HAZARDOUS ACCORDING TO THE FEDERAL HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

COMPONENT

BALANCE OF COMPONENTS ARE NOT CONSIDERED HAZARDOUS

SECTION IV PHYSICAL DATA

BOILING POINT °F..... : >212 °F EVAPORATION RATE (Butyl Acetate=1) ... : >1
 SPECIFIC GRAVITY @ 25° C..... : 1.051 APPEARANCE @ 25° C : Opaque Green Liquid
 VAPOR PRESSURE, mm Hg @ 25° C ... : N/A
 VAPOR DENSITY, (AIR=1) : N/A ODOR : Mint Odor
 SOLUBILITY IN WATER : Complete



MATERIAL SAFETY DATA SHEET

DEFINITION OF ABBREVIATIONS:	
N/A:	NOT APPLICABLE
UNK:	UNKNOWN
N/E:	NOT ESTABLISHED

SECTION I

MANUFACTURER:

MISCO INTERNATIONAL, INC.
115 Messner Dr., Wheeling, Illinois 60090

PREPARATION DATE : JANUARY 1990
 DATE SENT TO CUSTOMER :
 INFORMATION PHONE NO. : 708-537-9400
 CHEMTREC : 1-800-424-9300

CUSTOMER:

HAZARD RATINGS

HEALTH	: 0	FLAMMABILITY	: 0
REACTIVITY	: 0	SPECIAL HAZARD ...	: N/A

SECTION II PRODUCT IDENTITY

TRADE NAME & SYN : **DUST N SHINE**
 DOT SHIPPING NAME : Compound, Cleaning, Liquid
 DOT HAZARD CLASS : Not Hazardous

SECTION III HAZARDOUS INGREDIENTS

AS ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS AND/OR STANDARDS PROMULGATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

COMPONENT	OSHA PEL	ACGIH TLV	APPROX %:
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SECTION IIIA NON-HAZARDOUS INGREDIENTS

THESE INGREDIENTS ARE NOT CONSIDERED HAZARDOUS ACCORDING TO THE FEDERAL HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

COMPONENT

BALANCE OF COMPONENTS ARE NOT CONSIDERED HAZARDOUS

SECTION IV PHYSICAL DATA

BOILING POINT °F	> 212 °F	EVAPORATION RATE (Butyl Acetate=1) ..	: N/A
SPECIFIC GRAVITY @ 25° C	: 0.995	APPEARANCE @ 25° C	: Light Tan
VAPOR PRESSURE, mm Hg @ 25° C ...	: N/A		: Opaque Liquid
VAPOR DENSITY, (AIR=1)	: N/A		: Emulsion
SOLUBILITY IN WATER	: Moderate	ODOR	: Lemon Odor

MATERIAL SAFETY DATA SHEET

(MSDS)

ITEM NUMBER: 866 - DISINF. BATHROOM CLNR. 19 OZ.

QUANTITY (As Used On Label and List): FOAM GENERAL PURPOSE CLNR

Emergency Medical Telephone Number

(24 HRS)

PRODUCT HAZARD RATINGS: Health = 2, Fire = 1, Reactivity = 0, Protective Equipment = *B (HMIG)
 (Rating Legend: 4 = Extreme, 3 = Serious, 2 = Moderate, 1 = Slight, 0 = Minimal)

Section I

MISCO INTERNATIONAL CHEM
 P O BOX 130

TELEPHONE NUMBER FOR INFORMATION:

WHEELING
 IL 60090

DATE PREPARED: 01/15/93
 NAME OF PREPARER: Philip T. Miller

Section II - Hazardous Ingredients/Identity Information

Chemical Names	Exposure Limits (LD50-Oral Rat)	SARA Title III SEC 313	ACGIH TLV/TWA	OSHA PEL	% By Wt.
2 Butoxy Ethanol (CAS# 111-76-2)	148mg/kg	Yes	25ppm(skin)	25ppm(skin)	4.85
Alkyl Dimethyl Amine Oxide (CAS# 7128-91-8)	NE	-	NE	-	1.0-5.0
Quarternary Ammonium Chloride (CAS# 5197-80-8)	620mg/kg	-	NE	-	0.1-0.5
Sodium Ethylene Diamine Tetraacetate (CAS# 64-02-8)	3030mg/kg	-	NE	-	1.0-5.0
Refined Petroleum Gas (CAS# 68476-85-7)	NE	-	1000	1000	1.0-5.0

Unidentified ingredients are not considered hazardous under the Federal Hazard Communication Standard.
 Components Listed As A Suspected Carcinogen: None

Section III - Physical Characteristics

Boiling Point: NA Vapor Pressure (psig): 115 @130F Specific Gravity (H2O=1): <1.0
 Solubility/Water: >10% Vapor Density (AIR=1): >1 Evaporation Rate (Ether=1): <1
 Appearance and Odor: Foaming spray / floral-ammonia odor.

Section IV - Fire and Explosion Hazard Data

Aerosol Flammability: This product is considered to be non flammable as described in 16CFR 1500.45.
Flammable Limits - % Volume In Air (Propellant): LEL: 1.8 UEL: 9.2
Extinguishing Media: Carbon dioxide, foam and/or dry chemical may be used.
Special Fire Fighting Procedures: Containers should be cooled with water to prevent vapor pressure build up. Use equipment or shielding, as required, to protect personnel from bursting, rupturing or venting containers.
Unusual Fire and Explosion Hazards: At elevated temperatures (over 54C-130F) containers exposed to direct flame or heat contact should be cooled with water to prevent weakening of container structure.

Section V - Reactivity Data

Stability: Stable **Hazardous Polymerization:** NA
Incompatibility (Materials to Avoid): Strong oxidizers, heat and open flame.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and additional toxic chemicals may be formed in small amounts.
Precautions to Avoid: Do not store above 54C-130F. Keep away from heat, direct sunlight, open flames or sparks. Dropping of containers may cause bursting.



MATERIAL SAFETY DATA SHEET

DEFINITION OF ABBREVIATIONS:	
N/A:	NOT APPLICABLE
UNK:	UNKNOWN
N/E:	NOT ESTABLISHED

SECTION I

MANUFACTURER:

MISCO INTERNATIONAL, INC.®
115 Mesner Dr., Wheeling, Illinois 60090

PREPARATION DATE.....: October 1991
DATE SENT TO CUSTOMER:
INFORMATION PHONE NO.....: 708-537-9400
CHEMTREC: 1-800-424-9300

CUSTOMER:

HAZARD RATINGS

HEALTH : 1 FLAMMABILITY : 3
REACTIVITY : 0 SPECIAL HAZARD : N/A

SECTION II PRODUCT IDENTITY

TRADE NAME & SYN : **GLASS CLEANER CONCENTRATE**
DOT SHIPPING NAME : Compound, Cleaning, Liquid - Flash Point 73° or Higher
Limited Quantity, Flammable Liquid, NA 1993
DOT HAZARD CLASS : Not Hazardous

SECTION III HAZARDOUS INGREDIENTS

AS ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
AND/OR STANDARDS PROMULGATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

COMPONENT	OSHA PEL	ACGIH TLV	APPROX %:
ISOPROPYL ALCOHOL (CAS# 67-63-0)	N/A	400ppm	34.0
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS# 111-76-2)	N/A	25ppm	10.0

SUPPLIER NOTIFICATION

This is to notify you that our product

GLASS CLEANER CONCENTRATE

contains the following specific component(s) contained in Table III from Section 313 of the
Emergency Planning and Community Right-To-Know Act (Title III of the Superfund
Amendments and Reauthorization Act of 1986.)

INGREDIENT	CAS NUMBER	% IN PRODUCT
GLYCOL ETHERS	N/A	10.0

SECTION IIIA NON-HAZARDOUS INGREDIENTS

THESE INGREDIENTS ARE NOT CONSIDERED HAZARDOUS ACCORDING TO THE
FEDERAL HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

BALANCE OF COMPONENTS ARE NOT CONSIDERED HAZARDOUS

SECTION IV PHYSICAL DATA

BOILING POINT °F.....: >200° F. EVAPORATION RATE (Butyl Acetate=1) ..: N/A
SPECIFIC GRAVITY @ 25° C.....: 0.931 APPEARANCE @ 25° C: Blue Hazy
VAPOR PRESSURE, mm Hg @ 25° C ...: N/A Liquid
VAPOR DENSITY, (AIR=1): <1 ODOR: Alcohol Odor
SOLUBILITY IN WATER: Complete



MATERIAL SAFETY DATA SHEET

DEFINITION OF ABBREVIATIONS:	
N/A:	NOT APPLICABLE
UNK:	UNKNOWN
N/E:	NOT ESTABLISHED

SECTION I

MANUFACTURER:

MISCO INTERNATIONAL, INC.®
115 Messner Dr., Wheeling, Illinois 60090

PREPARATION DATE.....: September 1990

DATE SENT TO CUSTOMER.....:

INFORMATION PHONE NO.....: 708-537-9400

CHEMTREC.....: 1-800-424-9300

CUSTOMER:

HAZARD RATINGS

HEALTH.....: 1	FLAMMABILITY.....: 0
REACTIVITY.....: 0	SPECIAL HAZARD.....: 0

SECTION II PRODUCT IDENTITY

TRADE NAME & SYN.....: **POWER**
 DOT SHIPPING NAME.....: Compound, Cleaning, Liquid.
 DOT HAZARD CLASS.....: Not Hazardous

SECTION III HAZARDOUS INGREDIENTS

AS ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS AND/OR STANDARDS PROMULGATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

COMPONENT	OSHA PEL	ACGIH TLV	APPROX %:
2-BUTOXY ETHANOL (CAS# 111-76-2)	50ppm (Skin)	25 ppm	7.0

SUPPLIER NOTIFICATION

This is to notify you that our product

POWER

contains the following specific component(s) contained in Table III from Section 313 of the Emergency Planning and Community Right-To-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986.)

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>% IN PRODUCT</u>
GLYCOL ETHER	N/A	7.0

SECTION IIIA NON-HAZARDOUS INGREDIENTS

THESE INGREDIENTS ARE NOT CONSIDERED HAZARDOUS ACCORDING TO THE FEDERAL HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

COMPONENT

BALANCE OF COMPONENTS ARE NOT CONSIDERED HAZARDOUS

SECTION IV PHYSICAL DATA

BOILING POINT °F.....: >212° F	EVAPORATION RATE (Butyl Acetate=1) ..: >1
SPECIFIC GRAVITY @ 25° C.....: 1.040	APPEARANCE @ 25° C.....: Clear Violet Liquid
VAPOR PRESSURE, mm Hg @ 25° C....: N/A	ODOR.....: Mild Solvent Odor
VAPOR DENSITY, (AIR=1).....: >1	
SOLUBILITY IN WATER.....: Complete	



MATERIAL SAFETY DATA SHEET

DEFINITION OF ABBREVIATIONS	
N/A:	NOT APPLICABLE
UNK:	UNKNOWN
N.E.	NOT ESTABLISHED

SECTION I

MANUFACTURER:

MISCO INTERNATIONAL, INC.®
115 Messner Dr., Wheeling, Illinois 60090

PREPARATION DATE.....: JANUARY 1990
 DATE SENT TO CUSTOMER.....:
 INFORMATION PHONE NO.....: 708-537-9400
 CHEMTREC.....: 1-800-424-9300

CUSTOMER:

HAZARD RATINGS

HEALTH.....: 0 FLAMMABILITY.....: 0
 REACTIVITY.....: 0 SPECIAL HAZARD.....: N/A

SECTION II PRODUCT IDENTITY

TRADE NAME & SYN.....: **SUSTAIN**
 DOT SHIPPING NAME.....: Compound, Cleaning, Liquid
 DOT HAZARD CLASS.....: Not Hazardous

SECTION III HAZARDOUS INGREDIENTS

AS ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
 AND/OR STANDARDS PROMULGATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

COMPONENT	OSHA PEL	ACGIH TLV	APPROX %:
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SECTION IIIA NON-HAZARDOUS INGREDIENTS

THESE INGREDIENTS ARE NOT CONSIDERED HAZARDOUS ACCORDING TO THE
 FEDERAL HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

NONE OF THE COMPONENTS ARE CONSIDERED HAZARDOUS.

SECTION IV PHYSICAL DATA

BOILING POINT °F.....: \approx 212 °F	EVAPORATION RATE (Butyl Acetate=1) ...:	N/A
SPECIFIC GRAVITY @ 25° C.....: 1.014	APPEARANCE @ 25° C.....:	Clear Green
VAPOR PRESSURE, mm Hg @ 25° C....: N/A		Liquid
VAPOR DENSITY, (AIR=1).....: N/A	ODOR.....:	Lemon Lime
SOLUBILITY IN WATER.....: Complete		



MATERIAL SAFETY DATA SHEET

DEFINITION OF ABBREVIATIONS:
 N/A: NOT APPLICABLE
 UNK: UNKNOWN
 N/E: NOT ESTABLISHED

SECTION I

MANUFACTURER:

MISCO INTERNATIONAL, INC.
 115 Mesaner Dr., Wheeling, Illinois 60090

PREPARATION DATE: October 1991
 DATE SENT TO CUSTOMER:
 INFORMATION PHONE NO.....: 708-537-9400
 CHEMTREC: 1-800-424-9300

CUSTOMER:

HAZARD RATINGS

HEALTH: 1 FLAMMABILITY.....: 0
 REACTIVITY: 0 SPECIAL HAZARD: 0

SECTION II PRODUCT IDENTITY

TRADE NAME & SYN: **SUCCESS**
 DOT SHIPPING NAME.....: Compound, Cleaning, Liquid
 DOT HAZARD CLASS: Not Hazardous

SECTION III HAZARDOUS INGREDIENTS

AS ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS AND/OR STANDARDS PROMULGATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

COMPONENT	OSHA PEL	ACGIH TLV	APPROX %:
ETHYLENE GLYCOL (CAS# 107-21-1)	N/A	50ppm (ceiling)	1.0
DIETHYLENE GLYCOL MONOETHYL ETHER (CAS# 111-90-0)	N/A	N/E	5.0
ZINC AMMONIUM CARBONATE (CAS# 40891-29-8)	N/A	N/E	2.0

SUPPLIER NOTIFICATION

This is to notify you that our product

SUCCESS

contains the following specific component(s) contained in Table III from Section 313 of the Emergency Planning and Community Right-To-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986.)

INGREDIENT	CAS NUMBER	% IN PRODUCT
GLYCOL ETHERS	N/A	4.0
ZINC COMPOUNDS	N/A	2.0
ETHYLENE GLYCOL	107-21-1	1.0

SECTION IIIA NON-HAZARDOUS INGREDIENTS

THESE INGREDIENTS ARE NOT CONSIDERED HAZARDOUS ACCORDING TO THE FEDERAL HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

COMPONENT

BALANCE OF COMPONENTS ARE NOT CONSIDERED HAZARDOUS

SECTION IV PHYSICAL DATA

BOILING POINT °F: >212 °F EVAPORATION RATE (Butyl Acetate=1) ...: N/A
 SPECIFIC GRAVITY @ 25° C.....: 1.030 APPEARANCE @ 25° C: Opaque White
 VAPOR PRESSURE, mm Hg @ 25° C ...: N/A Liquid
 VAPOR DENSITY, (AIR=1): N/A *ODOR: Slight Am-
 SOLUBILITY IN WATER: Complete monia Odor



MATERIAL SAFETY DATA SHEET

DEFINITION OF ABBREVIATIONS:	
N/A:	NOT APPLICABLE
UNK:	UNKNOWN
N/E:	NOT ESTABLISHED

SECTION I

MANUFACTURER:

misco INTERNATIONAL, INC.
115 Messner Dr., Wheeling, Illinois 60090

PREPARATION DATE JANUARY, 1990
DATE SENT TO CUSTOMER
INFORMATION PHONE NO. 708-537-9400
CHEMTREC 1-800-424-9300

CUSTOMER:

HAZARD RATINGS

HEALTH	: 0	FLAMMABILITY	: 0
REACTIVITY	: 0	SPECIAL HAZARD ...	: N/A

SECTION II PRODUCT IDENTITY

TRADE NAME & SYN **VUE**
DOT SHIPPING NAME Compound, Cleaning, Liquid
DOT HAZARD CLASS Not Hazardous

SECTION III HAZARDOUS INGREDIENTS

AS ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS AND/OR STANDARDS PROMULGATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

COMPONENT	OSHA PEL	ACGIH TLV	APPROX %:
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS# 111-76-2)	N/A	25ppm	1.0
ISOPROPYL ALCOHOL (CAS# 67-63-0)	N/A	400ppm	6.0

SECTION IIIA NON-HAZARDOUS INGREDIENTS

THESE INGREDIENTS ARE NOT CONSIDERED HAZARDOUS ACCORDING TO THE FEDERAL HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

COMPONENT

BALANCE OF COMPONENTS ARE NOT CONSIDERED HAZARDOUS

SECTION IV PHYSICAL DATA

BOILING POINT °F	>212 °F	EVAPORATION RATE (Butyl Acetate=1) ...	: N/A
SPECIFIC GRAVITY @ 25° C	: 0.985	APPEARANCE @ 25° C	: Clear Blue
VAPOR PRESSURE, mm Hg @ 25° C ...	: N/A		: Liquid
VAPOR DENSITY, (AIR=1)	: N/A	ODOR	: Light Ammonia
SOLUBILITY IN WATER	: Complete		: Odor