### **COUNTY OF RIVERSIDE** STANDARD SAFETY OPERATIONS MANUAL

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Employee Right-To Know Program **REVISED DATE:** 12/12/03

California Code of Regulations, (CCR), Title 8, General Industry Safety Orders, **PURPOSE:** 

(GISO), Section 5194, requires all employers to comply with the Hazard

Communication Program. This document outlines how each of the requirements set forth in the Cal/OSHA Hazard Communication Regulation (H.C.R.), Title 8, General Industry Safety Orders, Section 5194 of the California Administrative Code will be

met by the County of Riverside.

**POLICY:** Each Department/Agency/District head will adopt a written Hazard Communication

Program (HCP) and will ensure a Hazard Communication Program Coordinator

(HCPC) has been appointed to manage and coordinate the organization's program and that a Hazard Communication Program Workplace (HCPW) Representative has been assigned at each workplace within their organization to manage the program at that location. Departments/Agencies/Districts may utilize the County Written Hazard

Communication Program starting with paragraph IX of this document verbatim or may adopt a program suitable to their own specific needs, but in no case, will the

requirements of the County's written program be diminished.

**OBJECTIVE:** To maintain employee safety and health, define the guidelines for the Hazard

Communication Program for all departments and assure compliance with regulatory

requirements.

SCOPE: All County employees.

REFERENCE: CCR Title 8, GISO Section 5194.

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### I. HAZARD COMMUNICATION OVERVIEW

The following is an overview of California Code of Regulations, Title 8, General Industry Safety Orders Section 5194, "Hazard Communication".

The Hazard Communication standard, as it applies to the County of Riverside, requires all supervisors to provide information to their employees, as well as other individuals entering designated areas, about the hazardous substances to which they may be exposed by means of a Hazard Communication Program, labels and other forms of warning, material safety data sheets and information and training.

This requirement applies to any hazardous substance 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 reasonably foreseeable emergency resulting from workplace operations.

This regulation <u>does not require additional labeling</u> of the following substances:

- 1. Any pesticide, as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency.
- 2. Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device, including materials intended for use as ingredients in such products (e.g., flavors and fragrances), as such items are defined in the Federal Food, Drug and Cosmetic Act.
- 3. Any distilled spirits (beverage alcohols), wine or malt beverage intended for non industrial use.
- 4. Any consumer product or hazardous substance as those terms is defined in the Consumer Product Safety Act and Federal Hazardous Substances Act.

This regulation does not apply to:

- 1. Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.
- 2. Tobacco or tobacco products.
- 3. Wood or wood products (non-excluded hazardous substances which are used in conjunction with wood or wood products, or are known to be present as impurities in those materials are covered by this section).
- 4. Articles (hazardous substances used in the manufacture or use of an article are covered by this section unless otherwise excluded).
- 5. Foods, drugs or cosmetics intended for personal consumption while employees are in the workplace.
- 6. Retail food sale establishments and all other retail trade establishments, exclusive of processing and repair work areas.
- 7. Consumer products packaged for distribution to and use by the general public, unless employee exposure is greater than exposure to the ordinary customer.

### I. HAZARD COMMUNICATION OVERVIEW - continued

8. The use of a substance in compliance with regulation of the Director of Food and Agriculture issued pursuant to Section 12981 of the Food and Agricultural Code.

Proposition 65 Warnings: The County is exempt from Health and Safety Code Section 25249.11 (a) and (b). Safe Drinking Water and Toxic Enforcement Act of 1986.

### II. HAZARD DETERMINATION

- A. *Hazardous Substances:* All supervisors shall evaluate and identify all substances in the workplace, and determine if they are hazardous as established by the following criteria:
  - 1. The list of hazardous substances prepared by the Director pursuant to Labor Code Section 6382 and as promulgated in Title 8, CCR, Section 339. The concentrations and footnotes which are applicable to the list shall be understood to modify the same substance on all other source lists or hazard determinations set forth in Section 5194(d).
  - 2. 29 CFR 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).
  - 3. Most current issue of *Threshold Limit Values for Chemical Substances in the Work Environment*, American Conference of Governmental Industrial Hygienists (ACGIH).

All supervisors are responsible for evaluating the hazards associated with the substances in these source lists in accordance with the requirements of the standard. Supervisors may contact the Safety Division at (909) 955-3520, if questions arise in identifying a substance as hazardous.

- B. Carcinogenic Substances: All supervisors shall evaluate and identify all substances in the workplace, and determine if they are carcinogenic as established by the following criteria:
  - National Toxicology Program (NTP), Sixth Annual Report on Carcinogens, 1991;
  - 2. International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Volumes 1-53 and Supplements 1-8, World Health Organization.
  - 3. 29 CFR 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

Note: The Registry of Toxic Effects of Chemical Substances published by the National Institute for Occupational Safety and Health indicates whether a substance has been found by NTP or IARC to be a potential carcinogen.

- C. Mixtures of Substances: All supervisors shall determine the hazards of mixtures of substances as follows:
  - 1. 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. HAZARD DETERMINATION - continued

- 2. 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 Section 5194(d).
- 3. If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the supervisor may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture.
- 4. If the supervisor 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 permissible exposure limit or ACGIH Threshold Limit Value, or could present a health hazard to employees in those concentrations, the mixture shall be assumed to present the same hazard.
- 5. The supervisor shall describe in writing how they determined the substance to be hazardous. The written procedures are to be made available upon request to employees, their designated representatives, the Director of Industrial Relations and NIOSH. The written description may be incorporated into the written Hazard Communication Program required under section 5194(e).

### III. WRITTEN HAZARD COMMUNICATION PROGRAM REQUIREMENTS

- A. All departments and agencies shall implement and maintain at each workplace, either this County written Hazard Communication Program or develop a program suitable to their specific needs and in the manner they choose to accomplish it, except that in no case will the requirements of the County program be diminished. All programs will include labeling and other forms of warning. Material Safety Data Sheets (MSDS), communication, initial training and additional training whenever a new hazardous substance is introduced into the workplace.
- B. A list of all hazardous substances known to be present at the workplace will be compiled and placed in the front of each workplace MSDS binder or otherwise made available to all employees of that workplace.
- C. The written Hazard Communication Program will list the methods the department will use to inform the employees of the hazards of non-routine tasks and the hazards associated with substances contained in unlabeled pipes in their work areas.
- D. In multi-employer workplaces, the written Hazard Communication Program shall stipulate the methods used to inform any employers sharing the same work area of the hazardous substances to which their employees may be exposed while performing their work, and any suggestions for appropriate protective measures, including:
  - 1. The methods the County will use to make material safety data sheets available to other employers, or to make it available at a central location.
  - 2. The methods the County will use to inform other employers of any precautionary measures needed during normal working hours and in emergencies.

### III. WRITTEN HAZARD COMMUNICATION PROGRAM REQUIREMENTS - continued

3. The methods the County will use to inform other employers of the labeling system used in the workplace.

The County shall make the written Hazard Communication Program available upon request to employees, their designated representatives, the Director of Industrial Relations and NIOSH, in accordance with CCR Title 8 Section 3204(e).

### IV. LABLES AND OTHER FORMS OF WARNING

- A. All containers containing highly toxic, corrosive, flammable, oxidizing, pyrophoric, or any other hazardous substances will be labeled, tagged or marked with the following information:
  - Identity of the hazardous substance(s);
  - 2. Appropriate hazard warnings;
  - 3. Name and address of the manufacturer, importer, or other responsible party.
- B. An employee using a hazardous substance is not required to label portable containers into which hazardous substances are transferred from labeled containers, and which are intended only for the <u>immediate</u> use of the employee who performs the transfer.
- C. Employees shall not remove or intentionally deface existing labels on incoming containers of hazardous substances, unless the container is immediately marked with the required information.
- D. Supervisors 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. Supervisors 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.

### V. MATERIAL SAFETY DATA SHEETS

- A. Supervisor will obtain the MSDS for each hazardous substance employee's use or are exposed to in the workplace, and will review new or revised MSDS's with all affected employees within 30 days of receipt of the MSDS. The Department/Agency appointed HCPC and assigned HCPW representatives will assist supervisors in obtaining MSDS's and compliance with program requirements. These Material Safety Data Sheets shall be readily accessible during each work shift to employees in their workplace.
- B. County employees shall ensure they have availed themselves of information on Material Safety Data Sheets outlining specific hazards associated with a product containing hazardous substances prior to their use or exposure to the product.
- C. All Material Safety Data Sheets will be reviewed for completeness by each assigned workplace HCP manager when first received and must be in English and contain the following information:

### V. MATERIAL SAFETY DATA SHEETS - continued

- 1. Trade name of the product and breakdown of the hazardous substances used:
  - a. If the hazardous substance is a single substance, its chemical and common name and CAS number:
  - b. If the hazardous substance is a mixture which has been tested as a whole to determine its hazards, the chemical, common name(s) and CAS numbers of the ingredients which contribute to these known hazards, and the common name(s) of the mixture;
- 2. Physical and chemical properties (i.e., vapor pressure, flash point);
- 3. Physical hazards (i.e., potential for fire, explosion, and reactivity);
- Health hazards, including signs and symptoms of exposure and any medical conditions which are generally recognized as being aggravated by exposure to the substance;
- 5. Potential route(s) of entry;
- 6. OSHA permissible exposure limit, ACGIH Threshold Limit Value;
- 7. Whether the hazardous substance is listed in the National Toxicology Program (NTP) Sixth Annual Report on Carcinogens or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC);
- 8. Precautions for safe handling and use;
- 9. Control measures such as appropriate engineering controls, work practices, or personal protective equipment;
- 10. Emergency and first aid procedures;
- 11. Date of the preparation of the MSDS or the last change to it;
- 12. Name, address and telephone number of the manufacturer or other responsible party who can provide additional information on the hazardous substance and appropriate emergency procedures;
- 13. A description in lay terms on either a separate sheet or with the body of the information of the specific potential health risks posed by the hazardous substance intended to alert any person reading the information;
- 14. If no relevant information is found for any given category on the material safety data sheet, it shall be marked "N/A" or a statement that no information is available.
- D. As Material Safety Data Sheets are received, they must be copied and distributed as follows:
  - 1. Yellow MSDS binder in the work area where the substance is kept.
  - 2. Supervisor of the work area.

### V. MATERIAL SAFETY DATA SHEETS - continued

- 3. Safety Division Human Resources Department, indicating the department and workplace and street address, including phone from which the MSDS is being sent. The Safety Division will assign an MSDS control number and notify the workplace of the control number.
- 4. Departmental Safety Official (in addition to above, if department has their own safety department).
- 5. Department/Agency/District Hazard Communication Program Coordinator.
- 6. Hazard Communication Program Workplace Manager.
- E. Procedures for missing MSDS's or missing information:

If an MSDS is missing or obviously incomplete, a new MSDS will be requested from the manufacturer or supplier. The County Safety Division will assist any workplace in obtaining an MSDS if they encounter a problem in doing so and request such assistance.

### VI. TRAINING

- A. Supervisors shall provide their employees with information and training on hazardous substances in their work area at the time of their initial assignment, and whenever a new hazard is introduced into their work area. Supervisors may consult their HCPW Representative or Department HCP Coordinator for assistance.
- B. Employees shall be informed of the requirements and details of the Hazard Communication Program, including an explanation of the labeling system, what they are and how to use material safety data sheets, and how employees can obtain and use the appropriate hazard information.
- C. Employees shall be informed of any operations in their work area where hazardous substances are present.
- D. Employees shall be informed of the location and availability of the yellow 3-ring MSDS binder containing the written Hazard Communication Program, including the list of hazardous substances and each substance's material safety data sheets.
- E. Employees shall be trained in the methods and observations that may be used to detect the presence or release of a hazardous substance in the work area (such as monitoring devices, etc.).
- F. Employees shall be trained in the physical and health hazards of the substances in the work area and the measures they can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous substances, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

### VI. TRAINING - continued

- G. Supervisors shall inform employees of the right:
  - 1. To personally receive information regarding hazardous substances to which they may be exposed, according to the provisions of this section;
  - 2. For their physician or collective bargaining agent to receive information regarding hazardous substances to which the employee may be exposed according to provisions of this section:
  - 3. Against discharge or other discrimination due to the employee's exercise of the rights afforded pursuant to the provisions of the Hazardous Substances Information and Training Act.
- H. All supervisors will prepare SOP Form 6001-1 for each employee upon completion of training and distribute to the employee's personnel file, the supervisor's file and to the employee.
- I. Whenever the supervisor receives a new or revised material safety data sheet, it shall be reviewed with all affected employees on a timely basis not to exceed 30 days after receipt, if the new information indicates significantly increased risks to, or measures necessary to protect, employee health as compared to those stated on a previous MSDS.

### VII. TRADE SECRETS

- A. Manufacturers or importers may withhold the specific identity of a chemical if they are protecting a bona fide trade secret and have notified the Director of the Department of Industrial Relations.
- B. The manufacturer, importer or employer may withhold the specific chemical identify of a hazardous substance from the material safety data sheet, provided that:
  - 1. The claim that the information withheld is a trade secret can be supported;
  - 2. Information contained in the material safety data sheet concerning the properties and effects of the hazardous substance is disclosed:
  - 3. The materials safety data sheet indicates that the specific chemical identity is being withheld as a trade secret; and
  - 4. The specific chemical identify is made available to health or safety professional, employees and designated representatives in accordance with the applicable provisions of this subsection.
- C. Manufacturers or importers must release the actual chemical identity to health and safety professionals under both emergency and non-emergency conditions.
- D. The rules in the General Industry Safety Orders, Section 3204(i) in Title 8 of the California Administrative Code provide specific conditions for trade secret release and for holding the information confidential.

### VIII. GLOSSARY

**Acute Effect:** An adverse effect on a human or animal, with symptoms developing rapidly and quickly becoming a crisis. See "Chronic Effect".

**Antidote:** An agent that neutralizes or counteracts the effects of a poison.

**Article:** A manufactured item (1) which is formed to a specific shape or design during manufacture; (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (3) which does not release, or otherwise result in exposure to, a hazardous substance under normal conditions of use or in a reasonably foreseeable emergency resulting from workplace operations.

**Asphyxiates:** A chemical gas or vapor that can cause unconsciousness or death by suffocation. Simple asphyxiates, such as nitrogen, either use up or displace oxygen in the air. Chemical asphyxiates, such as carbon monoxide interfere with the body's ability to receive or use an adequate supply of oxygen.

**Boiling Point:** The temperature at which liquid changes to a vapor. Expressed in degrees Fahrenheit at sea level pressure. Flammable materials with low boiling points generally present special fire hazards.

**Carcinogen:** A chemical is considered to be a carcinogen if it is a substance or agent that may cause cancer in animals or humans.

**CAS number:** The unique identification number assigned by the Chemical Abstracts Service to specific chemical substances.

**Chemical Family:** A group of compounds with related chemical and physical properties, such as ketone or aldehyde family.

**Chemical Name:** 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 substance for the purpose of conducting a hazard evaluation.

**Chronic Effect:** An adverse effect on an animal or human. Symptoms develop slowly over a long period of time or recur frequently.

**Combustible:** A substance capable of fueling a fire. According to OSHA, any liquid having a flash point at or above 100°F and less than 200°F is a combustible liquid.

**Common name:** Any designation or identification such as code name, code number, trade name, brand name, or generic name used to identify a substance other than by its chemical name.

**Compressed gas:** A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70°F (21.1°C); or a gas mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130°F (54.4°C) regardless of the pressure at 70°F (21.1°C); or a liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C) as determined by ASTM D-323-72.

**Concentration:** The amount of a substance in a stated unit of mixture or solution. For example, 5 parts (of acetone) per million (parts air). See PPM.

### VIII. GLOSSARY - continued

**Container:** Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, tank truck, etc., that contains a hazardous substance. For purposes of this regulation, pipes or piping systems are not considered to be containers.

**Corrosive:** A substance that, according to the DOT, causes visible destruction or permanent changes in human skin tissue at the site of contact. Or, a liquid that has a severe corrosion rate on steel.

**Decomposition:** The breakdown of a chemical or substance into different parts or simpler compounds. Decomposition can occur due to heat, chemical reaction, decay, etc.

**Defatting:** The removal of natural oils from the skin by fat-dissolving solvent.

**Dermatitis:** An inflammation of the skin.

**Distributor:** A business, other than a manufacturer or importer, which supplies hazardous substances to other distributors or to employers.

**D.O.T.:** The U.S. Department of Transportation (DOT) regulates the transportation of materials.

**Emergency:** Any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which may or does result in a release of a hazardous substance into the workplace.

**Emulsion:** A stable mixture of two or more immiscible liquids held in suspension by small percentages of substances called emulsifiers.

**Evaporation Rate:** The rate at which a material is converted to vapor (evaporates) at a given temperature and pressure when compared to the evaporation rate of a given substance. For example, this MSDS show n-BuAc (normal butyl acetate) as the given substance. Its evaporation rate equals 1. Fast evaporating substances show numbers greater than 3.

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

**Exposure or Exposed:** Any situation arising from work operation where an employee may ingest, inhale, absorb through the skin or eyes, or otherwise come into contact with a hazardous substance.

Flammable: A material that is easily ignited and burns very rapidly.

**Flammable Liquid:** As defined by OSHA, any liquid with a flash point below 100°F.

**Flash Point:** The minimum temperature at which a liquid will give off enough flammable vapor to ignite in the presence of an ignition source.

**Hazard Warning:** Any words, pictures, symbols, or combination thereof, appearing on a label or other appropriate form of warning which convey the health hazards and physical hazards of the substance(s) in the container(s).

**Hazardous substance:** Any substance which is a physical hazard or a health hazard or is included in the List of Hazardous Substances prepared by the Director pursuant to Labor Code section 6382.

### VIII. GLOSSARY - continued

**Health hazard:** A substance 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 substances 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.

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

*Ignitable:* A solid, liquid or compressed gas that has a flash point of less than 140°F. Capable of being set on fire.

*Immediate use:* The hazardous substance 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.

*Incompatible:* The term used for two substances to indicate that one material cannot be mixed with the other without the possibility of a dangerous reaction.

**Ingestion:** Taking a substance into the body through the mouth.

**Inhalation:** The breathing of an airborne substance into the body (lungs), through the nose, mouth and breathing passages. May be in the form of a gas, vapor, fume, mist or dust.

**Inhibitor:** A substance that is added to another to prevent or slow down an unwanted reaction or change.

*Irritant:* A substance that produces an irritating effect when it contacts the skin, eyes, nose or respiratory system.

**Label:** Any written, printed or graphic material displayed on or affixed to containers of hazardous substances.

**LEL:** Lower Explosive Limit. The lowest concentration of a substance that will produce a fire or flash when an ignition source is present. It is expressed as a percent of vapor or gas in the air by volume. At concentrations below the LEL, the mixture is too "lean" to burn. See UEL.

**Manufacturer:** A person, who produces, synthesizes, extracts, or otherwise makes a hazardous substance.

**Material Safety Data Sheet:** Written or printed material concerning a hazardous substance which is prepared in accordance with CCR Title 8 Section 5194.

**Mixture:** Any solution or intimate admixture of two or more substances, at least one of which is present as a hazardous substance, which do not react chemically with each other.

Mutagen: A substance or agent capable of changing the genetic material of a living cell.

**N/A:** An abbreviation for Not Applicable.

*Narcosis:* Stupor or unconsciousness caused by exposure to a chemical.

### VIII. GLOSSARY - continued

**NIOSH:** The National Institute of Occupational Safety and Health, U.S. Department of Health and Human Services.

**Organic peroxide:** 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.

**OSHA:** The Occupational Safety and Health Administration is a federal agency that publishes and enforces health and safety regulations for most business and industries.

**Oxidizer:** A chemical that initiates or promotes combustion in other materials, thereby causing fire itself or through the release of oxygen or other gases.

**PEL:** Permissible Exposure Limit. An exposure limit established by OSHA as a legal standard. May be a time-weighted average (TWA) limit or a minimum concentration exposure limit.

**pH:** Value that represents the acidity or alkalinity of an aqueous (water-based) solution. pH values from 0 to 7 indicate acidity and from 7 to 14 indicate alkalinity. (7 is neutral).

**Physical hazard:** A substance for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

**PPM:** Parts per million. A unit for measuring the concentration of a gas or vapor in contaminated air. Also used to indicate the concentration of a particular substance in a liquid or solid.

**Polymerization:** A chemical reaction in which one or more small molecules combine to form larger molecules. A hazardous polymerization is a reaction that takes place at a rate that releases large amounts of energy.

**Produce:** To manufacture, process, formulate, repackage, or relabel.

**Pyrophoric:** A substance that will ignite spontaneously in air at a temperature of 130°F (54.4°C) or below.

**Reactivity:** A substance's tendency to undergo a chemical reaction or change that may result in dangerous side effects, such as explosion, burning and corrosive or toxic emissions.

**Respirator:** A device that is designed to protect the wearer from inhaling harmful contaminants.

**Responsible party:** Someone who can provide additional information on the hazardous substance and appropriate emergency procedures, if necessary.

**Sensitizer:** A substance that may cause no reaction in a person during initial exposure, but to which further exposure will cause an allergic reaction.

**Solubility:** The percentage of a material (by weight) that will dissolve in water at a specified temperature.

**Specific chemical identity:** The chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

### VIII. GLOSSARY - continued

**Specific Gravity:** The weight of a material compared to the weight of an equal volume of water; an expression of the density (or heaviness) of the material. Insoluble materials with specific gravity less than 1 will float an important consideration for fire suppression and spill clean up.

Substance: Any element, chemical compound or mixture of elements and/or compounds.

**Teratogen:** A substance or agent to which exposure of a pregnant female can cause malformations in the fetus.

**TLV:** Threshold Limit Value. A term used to express the airborne concentration of a material to which nearly all persons can be exposed day after day without adverse effects.

**Toxin:** A substance that is poisonous to varying degrees.

**Toxicity:** The potential of a substance to have a harmful effect and a description of the effect and the conditions or concentration under which the effect takes place.

**Trade Secret:** Any confidential formula, pattern, process, device, information, or compilation of information which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it. A trade secret shall not include chemical identity information which is readily discoverable through qualitative analysis.

**UEL:** Upper Explosive Limit. The highest concentration of a substance that will burn or explode when an ignition source is present. Expressed in percent of vapor or gas in the air by volume. See LEL.

**Unstable** (reactive): A substance which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Use: To package, handle, react or transfer.

**Vapor:** The gaseous form of substances that is usually liquid or solid.

**Vapor Density:** The weight of a vapor or gas compared to the weight of an equal volume of air. An expression of density of the vapor or gas. Materials lighter than air have vapor densities less than 1. Lighter materials tend to rise and dissipate. Heavier vapors are likely to concentrate in low places where they may create fire or health hazards.

**Vapor Pressure:** The pressure exerted by a saturated vapor above its own liquid in a closed container. Vapor pressure is usually expressed as pounds per square inch, but on MSDS's, it is in millimeters of mercury (mmHG) at 68°F. The lower the boiling point of a substance, the higher its vapor pressure.

**Viscosity:** A fluid's internal resistance to flow.

**Volatile:** The tendency or ability of a liquid to vaporize. Liquids such as alcohol or gasoline are volatile because they have a tendency to evaporate quickly.

Water-reactive: A substance that reacts with water to release a gas that is either flammable or presents a health hazard.

### VIII. GLOSSARY - continued

**Work area:** A room or defined space in a workplace where hazardous substances are produced or used, and where employees or others are present.

**Workplace:** Any place, and the premises appurtenant thereof, where employment is carried on, except a place the health and safety jurisdiction over which is vested by law in, and actively exercised by, any state or federal agency other than the Division.

# COUNTY OF RIVERSIDE WRITTEN HAZARD COMMUNICATION PROGRAM

IX. This is the County of Riverside Written Hazard Communication Program that outlines how each requirement of the Cal/OSHA Hazard Communication Regulation (H.C.R.), Title 8, General Industry Safety Orders, Section 5194 will be met at this facility.

### X. CONTAINER LABELING

- A. Each supervisor will be responsible for ensuring labeling of containers, introduced into their work area.
- B. Each container of hazardous material in this facility received from an outside supplier will be clearly labeled with:
  - 1. Identity of hazardous chemical(s)
  - 2. Appropriate hazard warnings
  - Name and address of the manufacturer
- C. Each non-empty container of hazardous materials in the facility, including mixing tanks, storage tanks, drums, bags, bottles, and boxes will have a label attached to it.
- D. Labels provided by vendors on incoming containers will not be defaced or removed.

The County of Riverside does 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. If vendor labels are not available, a special label bearing the information in "B" above, will be made out and attached. Portable container labels may be used for this purpose. (See Appendix, 6001C and D for information and a sample of a portable container label).

E. Whenever hazardous materials are transferred into portable containers, the person transferring the material will attach a portable container label to the new container. The label must include the name of the product, identity of the hazardous chemical contained and applicable hazard warnings. If the person transferring the materials is uncertain of the identity of the material and the applicable hazard warnings, he or she will notify his or her immediate supervisor for resolution prior to transfer of materials.

### XI. MATERIAL SAFETY DATA SHEETS

- A. The County of Riverside meets the Hazard Communication Regulation (H.C.R.) requirements for Materials Safety Data Sheets (MSDS's) as an employer in the following manner:
  - 1. <u>The Hazard Communication Program Workplace Representative</u> will be responsible for maintaining the file of MSDS's at this facility. These MSDS's will be placed in a yellow 3-ring binder and kept at (location)

to be accomplished by the Workplace Representative and will be organized alphabetically by product name, which is the same name used on the product label on the container.

### XI. MATERIAL SAFETY DATA SHEETS - continued

- A copy of Emergency Exposure Procedures (SOP Form 6001-4), a completed Notice of Employee Rights (SOP Form 6001-2), a list of Hazardous Substances used at this workplace and a copy of the Facility Written Hazard Communication Program will also be kept in the MSDS binder.
- 2. The Hazard Communication Program Workplace Representative will review the MSDS's as they are received for new information and accuracy. If any parts of the MSDS's are missing or incomplete, the manager should request a new MSDS from the manufacturer or distributor. If the requested new MSDS is not received or is incomplete, the manager should contact the Safety Division at (909) 955-3520. If new hazard and/or safety information is received on an MSDS, the supervisor is responsible for informing employees of the new information on hazards and/or new safety requirements introduced into their work area within thirty (30) days of receipt and notifying the County Safety Division by supplying them with the updated MSDS.
- 3. MSDS's are available to all employees for review during each work shift in their area. An employee may refer to an MSDS by accessing the MSDS book, via the County's established internet and intranet MSDS program.

### XII. EMPLOYEE INFORMATION AND TRAINING

- A. The County of Riverside meets the H.C.R. requirements for employee information and training in the following manner:
  - 1. The Supervisor will permanently post a Notice of Employee Rights relating to the Hazard communication Program on the workplace Safety bulletin board. (See SOP Form 6001-2).
  - 2. The Supervisor provides employees with information and training on hazardous chemicals in their work area at the time of their initial assignment.
  - 3. The Supervisor will be responsible for conducting Hazard Communication training sessions for employees at this facility with assistance from the Hazard Communication Program Workplace Representative or Department Hazard Communication Coordinator.
  - 4. The Hazard Communication Information and Training Program will be accomplished at this facility through video-taped instruction, discussion of items specific to this facility, and a written review. The Hazard Communication Program Workplace Representative will have a copy of the County Hazard Communication Document 6001 to refer to if employees have any questions.
  - 5. Information and training provided at this facility shall include, but not be limited to:
    - a. An explanation of the Cal/OSHA Hazard Communication Standard including employee rights under the standard.
    - b. Inform employees about operations in their work area where hazardous substances are present and what measures can be taken to lessen or prevent exposure to them.

### XII. EMPLOYEE INFORMATION AND TRAINING - continued

- c. Employees shall be trained in the methods and observations that may be used to detect the presence or release of a hazardous substance in the work area (such as monitoring devices, etc.).
- d. The hazardous substances present, their physical and health effects and how to handle and use them, including correct use of personal protective equipment (PPE) and other precautions that may be used to prevent or minimize exposure, such as administrative and/or engineering controls.
- e. Explain the Emergency Procedures to follow in case of exposure, spills or fire, involving hazardous substances. (See SOP Form 6001-4).
- f. Explain how to read and make labels, what an MSDS is, and how to obtain appropriate hazard and first aid information.
- g. Explain where and how to access the facility's Written Hazard Communication Program, Material Safety Data Sheets, and the procedure to access and utilize the County's Internet/Intranet MSDS Program.
- h. Explain Hazards of Non-Routine Tasks (See paragraph XIV of this document).
- 6. When procedures or equipment involving hazardous substances change or new hazardous substances are introduced, Supervisors will review the changes with all affected employees.
- 7. All training shall be documented and maintained by the supervisor on SOP Form 6001-1 including the review of changes or new MSDS's.

### XIII. LIST OF HAZARDOUS CHEMICALS

- A. The County of Riverside meets the H.C.R. requirement for the List of Hazardous Substances in the following manner:
  - 1. The list of known hazardous chemicals for this facility will be maintained and located within each workplace MSDS binder (book) (location of chemical listing) by the Hazardous Communication Program Workplace Representative.
  - 2. MSDS may be accessed online.
  - 3. More information on each hazardous chemical can be found by reviewing the MSDS for that product.

### XIV. HAZARDS OF NON-ROUTINE TASKS

- A. The County of Riverside meets the H.C.R. requirements of informing employees about the hazards of non-routine tasks in the following manner:
  - 1. It is the policy of the County of Riverside to inform employees of potential hazards associated with non-routine tasks and work on or with unlabeled pipes and to advise them of the necessary personal protective equipment to accomplish such tasks.

### XIV. HAZARDS OF NON-ROUTINE TASKS - continued

- 2. Employees are informed of these hazards by their supervisor prior to starting work. Supervisors will utilize the following pre-task procedure:
  - Discuss potential hazards of activity.
  - b. Review the MSDS of any hazardous chemical involved in the non-routine work.
  - c. Review safety precautions that should be taken during this activity.

### XV. ON-SITE CONTRACTORS

- A. The County of Riverside meets the H.C.R. requirements for informing on-site contractors about hazardous chemicals to which their employees may be exposed in the following manner:
  - 1. It is the responsibility of the Hazard Communication Program Workplace Representative to furnish the on-site contractor with the following:
    - a. Description of hazardous chemicals to which the contractor's employees may be exposed.
    - b. Suggestions for appropriate protective measures.
  - 2. Likewise, on-site contractors will furnish the Hazard Communication Program Workplace Representative at the County facility with the following:
    - Description of any hazardous chemicals brought onto the County of Riverside facility or property to which County of Riverside employees may be exposed.
    - b. Suggestions for appropriate protective measures.
  - 3. The contractor must sign a statement (see SOP Form 6001-3 for sample statement) that they have read and agree to follow the policy outlined above, that they have been informed of hazardous chemicals to which their employees may be exposed, and that they have provided the Hazard Communication Program Workplace Representative with the information about any hazardous chemicals being brought onto County of Riverside property.
  - 4. The County of Riverside reserves the right to stop the work of a contractor if compliance with this policy is inadequate until all applicable safety and health procedures are implemented by the contractor and the contractor is in compliance with the County of Riverside's policy, County Safety Manual Document 6001.

**NOTE:** The requirements of this section do not apply to contractors who provide temporary employees to the County of Riverside.

### XVI. ACCESS TO "ONLINE" PROGRAM

### A. To Access the Program:

 You may access the County's MSDS Program either through the Intranet or the Internet.

### a. Intranet:

1) From the County's Intranet Homepage, locate the MSDS Information icon (little working man with MSDS sheet in hand). Then, click on the picture of a man on a ladder.

### b. *Internet:*

- 1) From the County's Homepage, select E-Services, Employee Services, and then Material Safety Data Sheets.
- 2) From the HR Homepage
  - Select Contact Us>Employee Information. Click the Online MSDS Program link;

or

ii. Select Divisions>Safety. Click the MSDS Online Program link.

### B. To Use:

- 1. The Acrobat Viewer Mode is a one-time download in order to view the MSDS sheets using the Acrobat reader. A hardcopy of the MSDS can then be printed. These sheets are "original" manufacturer's MSDS sheets, which may not be altered, per Federal OSHA regulations.
- 2. Enter all known information about the product and select (click on) the "Search" tab. This program has a "fuzzy" search capability, which means that you can enter partial or mistyped information into one of the fields and the system will return all MSDS's it finds that appear to meet the criteria entered. If the Exact Match box is checked, the system will look for exact matches to the criteria entered.

### C. To View the MSDS:

1. When the results are displayed, the MSDS number will appear in blue. Double-click on this number and the MSDS will appear. You may print a hardcopy of the MSDS at this point.

### XVII. ACCESS TO WRITTEN PROGRAM

- A. The County of Riverside meets the H.C.R. requirements for access to the Written Hazard Communication Program in the following manner:
  - 1. An employee may review this Written Hazard Communication Program by accessing the MSDS binder at his/her workplace.

### XVII. ACCESS TO WRITTEN PROGRAM - continued

2.	The Written and kept at	Hazard	Communication	Program	will b	e included	in every	MSDS	binder
	•		(location of M	ISDS bind	er)				
	to be determ	ined by t	the Hazard Comi	municatior	n Proc	gram Workp	lace Rep	resenta	tive.

### XVIII. HAZARD DETERMINATION PROCEDURES

A. The County of Riverside meets H.C.R. requirements for written hazard determination procedures in the following manner:

The hazard determination for all chemicals (list of hazardous chemicals) used at this facility is performed by each supervisor according to Appendix 6001-A, and kept on file in the MSDS binder (book).

- B. If anyone has questions about this written program, they should contact the Hazard Communication Program Workplace Representative.
- C. The implementation of the procedures in this program will be monitored by the Hazard Communication Program Workplace Representative and Department/Agency/District Hazard Communication Program Coordinator to assure the effectiveness of the program. Compliance and effectiveness will also be assessed by the County Safety Division on inspections.

### INDIVIDUAL EMPLOYEE TRAINING DOCUMENTATION

NAME OF TR	RAINER/INSTRUCTOR:					
TRAINING S	UBJECT: Hazard Communication Program					
TRAINING M	ATERIALS USED:					
	(videos, pamp	hlets, etc)				
NAME OF EN	MPLOYEE:					
DATE OF HIF	RE/ASSIGNMENT:					
I, Cal/OSHA Ha	, hereb azard Communication Program, GISO 5194 and the f	y certify that I received training on the ollowing topics as checked::				
[ ]	Employee Rights under the standard and method or release of a hazardous substance, such as app					
[ ]	Operations where hazardous substances are preslessen or prevent exposure to them.	sent and measures that can be taken to				
[ ]	The physical and health effects of hazardous subs How to handle or use the substance	stances.				
	The correct use of Personal Protective Equipment	t (PPE), if necessary.				
[ ]	Emergency Procedures to follow in case of an expsubstance. (See SOP Form 6001-4).	oosure, spill or fire involving a hazardous				
[ ]	Labeling and how to read labels, what an MSDS information from them. (See 6001-B and 6001-E,					
[ ]	Know where and how to access MSDS's, list of ha Written Hazard Communication Program.	azardous substances and the Facility				
[]	My supervisor will inform me of any hazards invol- accomplishing the task, however, I understand that hazards of the task, I will ask my supervisor for the routine work. (See paragraph XIV).	at if I have not been informed of the				
[ ]	[ ] I have read and discussed all of the facility data sheets on hand as of this date, and understand that I am to be informed of any new or revised MSDS within 30 days of receipt, the new sheets reflect increased risks or measures to protect health as compared to MSDS already provided. I have also had a chance to ask questions about this program, and I have a good understanding of it.					
I agree to cor Program.	mply with the instructions received, and will participate	e fully with the Hazard Communication				
	Employee Signature	Date				
	Trainer/Instructor Signature	Date				

SOP Form 6001-1

### HAZARD COMMUNICATION PROGRAM – RIGHT TO KNOW

### NOTICE TO ALL COUNTY EMPLOYEES

Access to Material Safety Data Sheets and information regarding hazardous substance exposure.

The California Code of Regulations, General Industry Safety Orders, Sections 3204 and 5194, state that you, your physician, and your collective bargaining agent have the right to receive information regarding hazardous substances to which you may be exposed, and may see and receive copies of material safety data sheets for substances used in the workplace that are on the State Department of Industrial Relations Directors' List of hazardous substances. No employee may be discharged or discriminated against in any way for exercising the rights afforded them under the Hazardous Substances Information and Training Act.

Attached is a list of products present in this area of employment that contain substances that are on the Directors' List of Hazardous Substances.

	Phone —
Location within immediate workplace	. none
ALSO FROM THE:	
County Safety Division, Master MSDS Li (909) 955-3520	ibrary

### **CONTRACTOR STATEMENT**

Per agreement between —	(contractor) and the County of
Riverside in which Contractor has agreed to perform of	ertain work on County property for an agreed fee or rate,
Contractor acknowledges the County uses various sub	ostances which may be classified as hazardous
substances under Cal/OSHA's Hazard Communication	n Standard. Contractor recognizes this use of hazardous
substances by the County and acknowledges that the	County has provided Contractor with a description of such
substances which may be present in the County's faci	lity to which Contractor and its employees may have
access during the performance of the job as agreed.	Contractor further acknowledges that the County has also
provided suggestions for appropriate protective measu	ures which should be observed when Contractor's
employees are in the area of the hazardous substance	es.
It is Controlled and a second shill to the information consider	
It is Contractor's sole responsibility to inform its emplo	yees of the described nazardous substances and
protective measures suggested by the County. It is Co	ontractor's further sole responsibility to ensure that
Contractor's employees observe protective measures	during the performance of their duties which are at least
as stringent as the protective measure suggested by the	he County.
Contractor agrees that, in the event that it shall be req	uired to bring any hazardous substances onto the
County's property during the performance of its job, it	shall notify the County in advance and suggest to the
County appropriate measures to be observed by the C	County's employees.
The County of Riverside specifically reserves the right	to interrupt or terminate Contractor's work if Contractor
should fail in whole or in part to comply with these term	ns and Contractor shall be prohibited from renewing such
work in progress until all applicable safety and health p	procedures are implemented.
Agreed this day of	20
CONTRACTOR	COUNTY OF RIVERSIDE
	(Representative)
Print/Type Name	Print/Type Name
Ciamations	Olaya ahuna
Signature SOP Form 6001-3	Signature

# EMERGENCY PROCEDURES INVOLVING A HAZARD SUBSTANCE

### IF A PERSON IS OVERCOME OR INJURED DUE TO AN EXPOSURE TO A HAZARDOUS SUBSTANCE:

- A. Transfer person to a safe area.
- B. Locate the Material Safety Data Sheet for the hazardous substance and read the instructions for emergency procedures.
- C. Administer first aid.
- D. Get the person to a doctor as soon as possible.

  SEND A COPY OF THE MATERIAL SAFETY DATA SHEET TO THE DOCTOR WITH THE INJURED EMPLOYEE.
- E. If necessary, evacuate personnel from area and report situation to the Fire Department.

### IN THE EVENT OF A LARGE SPILL OF A HAZARDOUS SUBSTANCE OR A FIRE:

- A. Evacuate other personnel from area.
- B. Call Fire Department and report the circumstances.
- C. Notify the County Safety Division (909) 955-3520, of the event as soon as possible.

# SUPERVISORS HAZARD DETERMINATION/EVALUATION

The first requirement of the Hazard Communication Regulation (H.C.R.) is that supervisors evaluate <u>all</u> chemical products that employees use or are exposed to in their work to determine if those products are hazardous. This evaluation should include products used for grounds care, vehicle maintenance, office administration and copy machines, etc.

- A. There are two general types of hazards that you will face in this evaluation health hazards and physical hazards.
  - 1. The term **HEALTH HAZARD** includes chemicals that can be classified as:
    - a. Irritants
    - b. Sensitizers
    - c. Carcinogens
    - d. Corrosives
    - e. Toxic agents
    - f. Reproductive agents
  - 2. A **PHYSICAL HAZARD** is classified as a chemical for which there is scientifically valid evidence that it is a:
    - a. Flammable, combustible or explosive material
    - b. Compressed gas
    - c. Oxidizer
    - d. Unstable substance
    - e. Reactive substance
- B. Supervisors will make a list of products and their hazardous chemicals from this evaluation. (See paragraph XIII).
- C. Supervisors must ensure they obtain the MSDS for any product they evaluate as a **HEALTH** or **PHYSICAL HAZARD** or both. These health and physical hazards should be covered in your employee training session using information from the MSDS.

HAZARD COMMUNICATION/EMPLOYEE RIGHT-TO-KNOW

**DOCUMENT NUMBER: 6001** 

**LABELING** 

The second requirement of the H.C.R. is labeling. If a hazard evaluation reveals a potential for health or

physical hazards, an appropriate warning label must appear on or be attached to, the container. These warning

labels must not be defaced or removed from the container. If you observe containers that do not have labels,

alert your supervisor.

Appendix 6001-C shows an example of a typical Product Label found on a manufactured product. Appendix

6001-D shows a Portable Container Label that may be used by County employees to label secondary or

temporary containers. The Portable Container Label is appropriate to use when a material is being used in a

specific work area and it is not practical to keep it in its original container. Any new or temporary container into

which such a material is transferred should be labeled or marked by the employee with the Product Name,

Hazardous Chemical and appropriate Hazard Warning, such as: flammable, vapor harmful, harmful if

swallowed, eye irritant, etc. The Hazard Warning shall be copied from the original manufacturer's label or the

MSDS for the product, if the original label is damaged and/or illegible.

Any employee needing a Portable Container Label to label a secondary or temporary container may Xerox or

copy Appendix 6001-D, fill in the Product Name, Chemical, Appropriate Hazard Warning and glue or tape it to

the container.

Appendix 6001-B

6001 - 27

### SAMPLE MANUFACTURER PRODUCT LABEL WATER-SOLUBLE DEGREASING SOLVENT

Read the entire label before using this product.

BIODEGRADABLE NON-BUTYL NON-PHOSPHATE

WATER-SOLUBLE DEGREASING SOLVENT attacks and dispenses grease, oil, sludge, carbon and other stubborn grime and quickly rinses away the dirt without leaving an oil residue.

WATER-SOLUBLE DEGREASING SOLVENT dilutes with up to 15 parts water for economical cleaning. WATER SOLUBLE DEGREASING SOLVENT is non-corrosive, non-flammable and will not support combustion. The non-butyl formula creates no toxic fumes and allows heavy duty cleaning in odorsensitive areas.

WATER-SOLUBLE DEGREASING SOLVENT effectively cleans metal, plastic, rubber and concrete, and may be used as a coil cleaner if rinsed immediately.

ABC Company 1234 Any Street Everywhere, USA 12345 1991 ABC Company

NET CONTENTS: 55 GALLONS

#### **DIRECTIONS**

INDUSTRIAL CLEANING: Cleans greasy, grimy soil on any industrial surface, including machinery, equipment, floors and walls. Dilute 1:1 to 1:5 for extremely heavy soils, and up to 1:15 for regular maintenance cleaning. Spray or wipe this cleaning solution on the surface, allow sufficient time for chemical action to take place (but do not allow to dry), then rinse thoroughly.

FOOD PROCESSING: Dilute 1:1 for grills, ovens, deep fat fryers and smokehouse cleanup. Dilute 1:2 to 1:4 for vents, hoods, fans, stove components and meat blocks. Dilute 1:5 to 1:15 for serving counters, splash boards, floors and walls. Spray or wipe this cleaning solution on the surface, allow sufficient time for chemical action to take place (but do not allow to dry), then rinse thoroughly with potable water

MARINE APPLICATIONS: Dilute up to 1:15, depending on dirt density, for general ship and bilge cleaning. WATER-SOLUBLE DEGREASING SOLVENT may be used dockside or underway.

DO NOT discharge rinse solution into waterways, estuaries or shipping lanes – dispose of rinse solution in conformance with local and federal environmental regulations.

**COIL CLEANING:** Dilute 1:1 to 1:3 – if the coils are hot, cool with water before applying the cleaning solution. DO NOT allow to dry; rinse thoroughly.

**KEEP FROM FREEZING:** If this product is stored in cold or freezing temperatures, it may separate or thicken. This will not harm the performance. Before using, warm to room temperature and stir thoroughly.

**NOTE:** WATER-SOLUBLE DEGREASING SOLVENT is a concentrated cleaner; it may etch glass and anodized aluminum and affect some painted surfaces. Pretest sensitive surfaces in an inconspicuous area before use.

Do not use around running electrical equipment. Do not use to clean equipment internally – use a product formulated especially for electrical equipment.

Authorized by the USDA for use in federally inspected meat and poultry plants.

#### WARNING

### IRRITANT SPRAY MIST HARMFUL HARMFUL IF SWALLOWED

Contains Sodium Metasilicate. Avoid breathing spray mist or contact with eyes and mucous membranes. Avoid prolonged or repeated contact with skin. Wear rubber gloves if repeated or prolonged skin contact is anticipated. Wear chemical goggles if the method of application presents the likelihood of eye contact. In case of skin contact, flush with water. See a physician if irritation persists. For eyes, flush with water for 15 minutes; see a physician if irritation persists. If swallowed, DO NOT induce vomiting. Give one or two glasses of water. Follow with citrus juice if available. Call a physician immediately.

KEEP OUT OF REACH OF CHILDREN.

See Material Safety Data Sheet for more information.

	PRTABLE CONTAINER LABEL e on Secondary or Temporary Portable Containers)
For your SAFETY and CONVENIENCE	This label is designed to help you properly identify chemical products for maximum safety and compliance with the OSHA Hazard Communication Standard, CCR, Title 8, GISO 5194 within your workplace.
Product Name  Hazardous Chemical  Hazard Warning	CAUTION: This label is intended for the limited identification of the hazardous chemical and its appropriate hazard warning. Consult the product Label and/or MSDS for full use directions and hazard warnings.
This sheet	may be duplicated for additional labels.
	PRTABLE CONTAINER LABEL e on Secondary or Temporary Portable Containers)
For your SAFETY and CONVENIENCE	This label is designed to help you properly identify chemical products for maximum safety and compliance with the OSHA Hazard Communication Standard, CCR, Title 8, GISO 5194 within your workplace.
Product Name  Hazardous Chemical	CAUTION: This label is intended for the limited identification of the hazardous chemical and its appropriate hazard warning. Consult the product Label and/or MSDS for full use directions and hazard warnings.
Hazard Warning	

Appendix 6001-D

### HAZARD COMMUNICATION/EMPLOYEE RIGHT-TO-KNOW

**DOCUMENT NUMBER: 6001** 

# MATERIAL SAFETY DATA SHEETS

Another key requirement in the Hazard Communication Standard is the Material Safety Data Sheet, or "MSDS". This is a document describing the results of the health and physical hazard evaluation the manufacturer of the product has performed. MSDS's for all hazardous materials should be available for reference in your work area. If you need assistance, please contact your supervisor.

The purpose of this section is to explain what an MSDS is, what type of information it contains, and how you might use the MSDS.

The Material Safety Data Sheet is designed to supplement the product label, since it is not always practical to fit all detailed safety and health information onto a container label.

Although the exact appearance and length of MSDS's may vary, the Hazard Communication Standard requires certain minimum information to be on all MSDS's.

The detailed information required on the MSDS generally describes:

- · What the chemical or chemical mixture is
- What conditions could increase the hazard
- Who makes or sells it
- How to handle the substance safely
- What protection is needed
- Why it's hazardous
- What to do if exposed
- How you can be exposed to the hazard
- What to do if there is a spill or emergency involving the chemical

### **EXPLANATION OF THE MATERIAL SAFETY DATA SHEET**

The detailed guide to the MSDS on the following pages was designed for educational purposes only. Please refer to a specific MSDS when you need product information.

A Glossary of abbreviations and terminology found in an MSDS is provided in paragraph VII of this document, see Table of Contents.

Appendix 6001-E

### **MATERIAL SAFETY DATA SHEET**

Date of Issue: Identifies most current version of MSDS

2. Supersedes: Date of previous version

Material Safety Data Sheet

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

1. Date of Issue: 04/01/04 2. Supersedes: 12/13/99

### SECTION I – GENERAL INFORMATION

- 3. Chemical Name and Synonyms: Not applicable (N/A) because product is a special blend, not a generic (single) chemical.
- 4. Trade Name and Synonyms: Manufacturer's product name
- 5. Chemical Name: Generic name of the chemical group with related physical and chemical properties, such as "acid" or "ketone". Where no formula is listed, and an "X" is used, this indicates that the product is a mix/blend of several raw materials.
- 6. Manufacturer's Name: The Manufacturer's Name Address: Manufacturer's address
- 7. Prepared by: Name of the person who prepared the MSDS
- 8. Product Code Number: Manufacturer's identifying product code number.
- 9. Emergency Telephone Number: Answered 24 hours a day for emergency communication.

SECTION I GENERAL INFORMATION					
3. Chemical Name & Synonyms: N/A	Trade Name & Synonyms:     Water-soluble Degreasing Solvent				
5 Chemical Family: Alkaline Detergent Formula X <mixture< td=""></mixture<>					
6. Manufacturer's Name: ABC Company					
Address: 1234 Any Street	City, State Everywhere, USA				
	Zip Code: 12345				
7. Prepared by: John Peterson/Chemist 8. Product Code Number: 0233					
9. Emergency Telephone Number: (123) 555-4567					

### SECTION II HAZARDOUS INGREDIENTS

A hazardous ingredient is any chemical that may present a physical hazard or health hazard as set forth in the OSHA Hazard Communication Standard. Unless the mixture has been tested, the hazards listed are those of the specific ingredient.

1. **Chemical Name** (Ingredients) – Specific chemical names of hazardous ingredients above the thresholds set by OSHA. The thresholds are 1.0% for most chemicals and .01% for carcinogens.

### 2. Hazard Abbreviations

IRR. = irritant
CORR. = corrosive
FLAMM. = flammable
COMB. = combustible
TOX. = toxic
HTOX = highly toxic
CARC. = carcinogenic
MUT. = mutagenic
TERAT. = teratogenic

See Glossary for definitions of above hazard types.

3. **TLV/PEL:** This area of the MSDS refers to permissible airborne exposure concentrations of the listed hazardous ingredients. The exposure limit represents conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, without significant adverse effects.

Exposure limits are developed by the Occupational Safety and Health Administration – Permissible Exposure Limit (PEL), and the American Conference of Governmental Industrial Hygienists – Threshold Limit Value (TLV), and are based on the best available information. See Glossary for definitions of PEL and TLV.

4. **CAS # -** Chemical Abstracts Service Registry Number is assigned by the American Chemical Society's Chemical Abstracts Service. It uniquely identifies a specific chemical substance regardless of the name or naming system used.

SECTION II HAZARDOUS INGRE	DIENTS			
The hazards presented below are the been tested as a whole.	ose of the in	dividual com	ponents as t	the product mixture has not
Chemical Name (Ingredients)	2. Hazard	3. TLV	4. PEL	5. CAS#
Sodium Metasilicate	Skin Irr.	2mg/m <sup>3</sup>	2mg/m <sup>3</sup>	6834-92-0
Tripropylene Glycol Monomethyl Ether	r Eye Irr.	Not est.	Not est.	20324-38-8

# SECTION III PHYSICAL DATA

This section describes physical data on the product as a whole, not on individual components.

- 5. **Boiling Point:** Temperature at which liquid changes to vapor state.
- 6. **Vapor Pressure:** Pressure exerted by a saturated vapor above its own liquid in a closed container.
- 7. **Vapor Density (Air=1):** Weight of the product vapor or gas compared to the weight of an equal volume of air (Relative Density).
- 8. **pH:** Value that represents the relative acidity or alkalinity of an aqueous (water based) solution. pH value from 0 to 7 indicate acidity, and from 7 to 14 indicate alkalinity. (7 is neutral).
- 9. **Percent Volatile by Volume:** Percentage of the volatile liquid or solid ingredient by volume of the product with an initial boiling point below 425°F (218°).
- 10. **Solubility in Water:** Solubility of the product by weight in distilled water at 68°F (20°C).

 Negligible
 = 0.1%

 Slight
 = 0.1 - 1%

 Moderate
 = 1-10%

 Appreciable
 = 10%

Complete = All proportions

- 11. **Viscosity:** Internal resistance of the product to flow exhibited by a fluid. Expressed as non-viscous, viscous, etc.
- 12. **Specific Gravity:** Ratio of the density of a material to the density of water at 68°F (20°C). Determines whether the material floats or sinks in water.
- 13. **Color**
- 14. **Odor**
- 15. **Clarity:** May be transparent, translucent or opaque for liquids. Describes the physical state of a solid, such as granular solid.
- 16. **Evaporation Rate:** Ratio of evaporation rate of the volatile ingredients to that of butyl acetate. (Butyl Acetate = 1).

SECTION III PHYSICAL DATA		
5. Boiling Point (Fahrenheit)	210	12. Spec. Gravity (H <sub>2</sub> 0 =1) 1.050
6. Vapor Pressure (mm HG)	17	13. Color Yellow-Green
7. Vapor Density (air=1)	6	14. Odor Low
8. pH @ 100%	12.2	15. Clarity Transparent
9. Percent, Volatile by Volume (%)	95	16. Evaporation Rate (BU AC=1) 0.10
10. Solubility in Water Comple	te	
11. Viscosity Non-vis	cous	

### SECTION IV FIRE AND EXPLOSION HAZARDS

This section describes fire and explosion hazard data on the product as a whole, not on individual components.

1. **Flash Point:** Temperature, and test methods used, at which a liquid will give off enough flammable vapor to ignite in the presence of an ignition source. The test method used to determine the flash point is abbreviated as:

TCC = Tagliabue Closed Cup
TOC = Taggart Open Cup
COC = Cleveland Open Cup
CCC = Cleveland Closed Cup
PM = Pensky-Martens

- 2. **Flammable Limits:** Range of gas or vapor concentrates (percent by volume in air) that will burn or explode if an ignition source is present.
- 3. **LEL:** Lower explosive limit in air, represented by the component with the lowest value in % by volume.
- 4. **UEL:** Upper explosive limit in air, represented by the component with the highest value in % by volume
- 5. **Extinguishing Media:** The letter "X" appears to the left of fire fighting agents suitable for use on the burning material. For example, foam, alcohol foam, CO, dry chemical, water spray or other.
- 6. **Special Fire-Fighting Procedures:** Appropriate equipment and methods are indicated for limiting hazards and providing protection from toxic by-products of combustion encounter in fires.
- 7. **Unusual Fire and Explosion Hazards:** Hazards and/or conditions that may cause fire or explosion are defined in this area. Indicates if water is not to be used and if the product is under pressure and may explode if exposed to fire.
- 8. **NFPA Hazard Rating:** (0 = Insignificant; 1=Slight; 2 = Moderate; 3 = Serious; 4 = Extreme). The degree of hazard is defined by a numerical system. When matched with blocks on the NFPA Hazard Label, they indicate the degree of hazard in four separate categories: Health (blue); Flammability (red); Reactivity (yellow) and Specific Hazards (white) such as an oxidizer, acid or radioactive substance.

SECTION IV FIRE AND EX	(PLOSION HAZARD				
Flash Point (Method Used)	2. Flammable Limits	3. LEL	4. UEL		
Non-Flammable	N/A	N/A	N/A		
5. Extinguishing Media	Dry	Water			
<foam <alcohol="" foam="" td="" x<0<=""><td>CO<sub>2</sub> X<chemical< td=""><td>X<spray< td=""><td><other< td=""></other<></td></spray<></td></chemical<></td></foam>	CO <sub>2</sub> X <chemical< td=""><td>X<spray< td=""><td><other< td=""></other<></td></spray<></td></chemical<>	X <spray< td=""><td><other< td=""></other<></td></spray<>	<other< td=""></other<>		
6. Special Fire Fighting Procedures:	Wear NIOSH/MSHA app confined areas to preven				
hazardous decomposition products.					
7. Unusual Fire & Explosion Hazards: None Known					
8. NFPA Hazard Rating (0= Insignificant; 1= Slight; 2=Moderate; 3=High; 4= Extreme					
1 <health< td=""><td>ı 0<flammability 0<-<="" td=""><td>Reactivity &lt;</td><td>Special</td></flammability></td></health<>	ı 0 <flammability 0<-<="" td=""><td>Reactivity &lt;</td><td>Special</td></flammability>	Reactivity <	Special		

### SECTION V HEALTH HAZARD DATA

- 9. **Effects of Overexposure:** This section describes the signs and symptoms that an individual may experience as a result of acute (short-term) or chronic (long-term) overexposure to the product.
- 10. **Primary Route of Entry:** Common ways the hazardous material may enter the body. "X" denotes the method(s) of entry.
- 11. **Emergency and First Aid Procedures:** Emergency procedures recommend to be followed upon acute overexposure to the product. Consult your physician when indicated. The "Notes to Physician" will help your doctor treat any injury or overexposure.

SECTION V	Η <b>Γ</b> ΔΙ ΤΗ ΗΔ <b>7</b> ΔRD DΔΤΔ

Threshold Limit Value: (Not established for mixture. See Section II).

9. Effects of Overexposure

Acute (Short-term exposure): Acute exposure from this alkaline mixture may result in reddening of

skin, moderate irritation and possible discomfort, irritating by inhaling spray mist to upper respiratory tract or other mucous membrane areas. Eye contact produces tearing, irritation and discomfort.

Accidental ingestions may cause nausea, diarrhea and irritation of the

intestinal lining.

Chronic (Long-term exposure): Long-term misuse resulting from airborne concentrations of mist or

spray may cause damage to upper respiratory tract. Chronic effects may result in superficial destruction of skin tissue and dermatitis. Chronic eye exposure can lead to destruction of eye tissue and

blindness. Persons with aggravated skin conditions or respiratory tract disease may be negatively affected by use of this product.

10. **Primary Route of Entry:** <--- Inhalation <--- Ingestion X<--- Absorption

11. Emergency & First Aid Procedures:

**Inhalation:** If inhaled in sufficient concentrations to cause coughing, sneezing or

respiratory irritation, the exposed person should be removed to fresh air and

treated symptomatically.

Eye Contact: Object is to seek medical attention immediately. Flush with plenty of water for

at least 15 minutes, holding eyelids apart to ensure flushing of the entire eye

surface. Seek medical attention if any irritation persists.

**Skin Contact:** Wash with plenty of water. See medical attention if any irritation persists.

**Ingestion:** If swallowed, do not induce vomiting. Give large amounts of water. If

available, give several glasses of citrus juice. Never give anything by mouth to

an unconscious person. Seek medical attention immediately.

Notes to Physician: Sodium Metasilicate: Gastric Levage is Indicated

### SECTION VI TOXICITY INFORMATION

Toxicity information obtained in cited sources (see Section XII) is included with specific reference to human studies and standard animal studies and pertinent mutagenic, teratogenic, and carcinogenic studies.

Note: Abbreviations are in accordance with those defined in Reference #4 of the NIOSH Registry of Toxic Effects of Chemical substances, 1982.

### **SECTION VI - TOXICITY INFORMATION**

Toxicology information obtained in cited sources (see Section XII) is included with specific reference to human studies and standard animal studies and pertinent mutagenic, teratogenic, and carcinogenic studies.

Note: Abbreviations are in accordance with those defined in Reference #4 of the NIOSH <u>Registry of Toxic Effects of Chemical Substances</u>, 1982.

CECTION VI	TOVICITY INFORMATION
SECTION VI	TOXICITY INFORMATION

Product contains chemical listed as carcinogen or potential carcinogen by:

IARC <---Yes NTP <--- Yes OSHA <--- Yes ACGIH <--- Yes Other <--- Yes X <--- No X <--- No X <--- No

**Sodium Metasilicate:** SKN-HMN: 250 mg/24 sev. 2

ORAL-PIG.LDLO 250 mg/kg 2

**Tripropylene Glycol Monomethyl Ether:** 

ORL-RAT LD50: 3300 mg/kg 2 ORL-DOG LD50: 5000 mg/kg 2

### SECTION VII REACTIVITY DATA

- 1. **Stability:** Indicates if the chemical is stable under reasonably foreseeable conditions of storage, use or misuse. The "X" indicates whether the chemical is stable or unstable.
- 2. **Condition to Avoid:** If unstable, conditions that may cause a dangerous reaction will be noted.
- 3. **Incompatibility (Materials to Avoid):** Other materials with which direct contact could cause a dangerous reactions.
- 4. **Hazardous Decomposition Products:** Hazardous materials produced in dangerous amounts by burning oxidation, aging, or heating through the welding of the chemical.
- 5. **Hazardous Polymerization:** A chemical reaction that takes place at a rate that releases large amounts of energy. The "X" indicates whether hazardous polymerization may occur.
- 6. **Conditions to Avoid:** Reasonably foreseeable storage conditions that would start polymerization. Shelf life of inhibitors will be included if available.

SECTION VII REACTIVITY DATA					
1. Stability X< Stable < Unstable	Conditions to Avoid:     N/A				
tl t	May etch glass or anodized aluminum if product is hot the surface is hot or the product is not rinsed or properly diluted.				
4.Hazard Decomposition Products					
Oxides of Carbon, Nitrogen, Silica					
5. Hazardous Polymerization X< Will no <may (<="" td=""><td></td></may>					

# SECTION VIII SPILL AND LEAK PROCEDURES

- 7. **Steps Taken Incase Material is Released or Spilled:** Reasonable precautions to be taken and the methods of clean-up for spills. Consult your supervisor for specific federal, state and local regulations for accepted procedures and any reporting or notification requirements.
- 8. **Waste Disposal Method:** What to do with the spilled material and the contaminated material used to control the spill or leak. Always consult your supervisor if you have any questions.
- Neutralizing Agents: Safest, most effective material and method that can be used to counteract the effect of spilled or leaked materials. Always consult your supervisor for assistance.

### SECTION VIII SPILL OR LEAK PROCEDURES

7. Steps Taken in Case Material is Released or Spilled

Small Spill: Flush surface with large amounts of water and flush down drain.

Large Spill: Stop leak. Contain spill. Remove by wet vacuum or absorbant. Reuse spilled

material if possible. Otherwise, place in closed labeled container and store in

safe place, flushing remaining residue to drain.

8. Waste Disposal Method: Dispose of in accordance with state, federal and local

regulations concerning health pollution. Normal procedure:

Skim off floating oil and grease and flush down drain or

separate in automotive oil/water separator and flush down

drain.

9. Neutralizing Agent: Dilute (10%) HCL or flush with large amounts of water.

# SECTION IV SPECIAL PROTECTION INFORMATION

- 10, **Required Ventilation:** Air flow practices (general, local) recommended to limit hazardous substances released into the atmosphere are listed.
- 11. **Respiratory Protection:** Personal protective equipment recommended to protect the wearer from adverse inhalation of hazardous chemicals or oxygen deficiency. Also included is a table of recommended respirator types for varying exposure conditions. See NIOSH <u>Pocket Guide to Chemical Hazards</u> for respirator type codes.
- 12. **Protective Gloves:** Type of gloves recommended to protect personnel during handling of hazardous chemicals.
- 13. **Eye Protection:** Recommended equipment for the protection of the eyes against chemical splashes, chipping, welding, or other eye-hazard exposures.
- **14. Other Protection:** Additional equipment recommended to be worn by the worker to prevent exposure or contact with hazardous chemicals.

SECTION IX SPEC	CIAL PROTECTION INFORMATION
10. Required Ventilation	on: Good industrial hygiene practice dictates that the work areas should provide adequate ventilation or controls to maintain and meet OSHA requirements.
11. Respiratory Protect	situation, the following respiratory selection is suggested:
	100 mg/m <sup>3</sup> : HIEPF/SAF/SCBAF
	200 mg/m <sup>3</sup> : PAPHIEF/SAF/PD/PP/CF Escape: DMXSF/SCBAF
12. Protective Gloves:	Impervious rubber gloves if repeated or prolonged skin contact is expected.
13. Eye Protection:	Chemical goggles if the method of application presents the likelihood of eye contact.
14. Other Protection:	N/A

### SECTION X STORAGE AND HANDLING INFORMATION

- 15. **Storage Temperature:** Recommend maximum and minimum storage temperatures to assure optimal performance and shelf life of the product.
- 16. **Special Storage Recommendations:** Indoor, Heated, Refrigerated, and Outdoor storage recommendations are noted by an "X" when applicable.
- 17. **Precautions to be taken in handling and storing:** General use and storage information.
- 18. **Other Precautions:** Labeling cautions that are not stated elsewhere on the MSDS. Includes surfaces upon which the product cannot be used and potential hazardous incompatibilities.

SECTION X STORAGE AND HANDLING INFORMATION						
15. Storage Temperature	16. Special Storage Recommendations					
120°F < Max. 32°F <min.< td=""><td>Indoor</td><td>Heated</td><td>Refrigerated</td><td>Outdoor</td></min.<>	Indoor	Heated	Refrigerated	Outdoor		
17. Precautions to be taken in handling and storing  If possible, store at moderate temperatures. Higher or lower storage temperatures should not harm the product's effectiveness but heat may cause increased aggressiveness on glass or						
aluminum. If product freezes, warm to room temperature and stir thoroughly.  18. Other Precautions Keep out of reach of children						
Read entire label before using						

# SECTION XI REGULATORY INFORMATION

This section specifies regulatory information not found in other sections of the MSDS. In this example, the information concerns chemical ingredients which are subject to the reporting requirements of the Federal Community Right-to-Know provisions of SARA. (See Glossary for definitions).

SECTION XI	REGULATORY INFORMATION		
Chemical Name N/A	C.A.S. Number	Upper % Limit	

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.

# HAZARD COMMUNICATION/EMPLOYEE RIGHT-TO-KNOW DOCUMENT NUMBER: 6001 SECTION XII REFERENCES

Literature cited for toxicology and health hazard information as recommended in Appendix C to 1910.1200 – Information Sources (Advisory) obtained in the Federal Register, Volume 52; No.163, dated August 24, 1987, page 31885.

### SECTION XII REFERENCES

- 1. Vendor's MSDS
- 2. Dangerous Properties of Industrial Materials, 6<sup>th</sup> Edition, N. Irving SAX

The information contained herein is based on data considered accurate in light of current formulation; however, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

ABC Company assumes no responsibility for personal injury or property damage caused by the use, storage or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage, or disposal of the product.