WRITTEN HAZARD COMMUNICATION PROGRAM

PURPOSE

The purpose of the Mariposa County's hazard communication program is to protect our employees and contractors from adverse exposure to hazardous chemicals in the workplace.

RESPONSIBILITY

The Risk Manager or their designee has full authority and responsibility for implementing and maintaining the County's program. The County provides information about the hazardous substances in our workplace, the associated hazards, and the control of these hazards through a comprehensive hazard communication program that includes the elements listed below.

The Facilities and Recreation Services Manager will prepare and keep current an inventory list of all known hazardous substances present in our workplace in a single master list for the County as a whole. Specific information on each noted hazardous substance can be obtained by reviewing the safety data sheets at mariposacounty.org/Facilities. A general list of locations can be found in Attachment A, "Hazardous Substance Inventory List".

SAFETY DATA SHEETS (SDSs)

Each chemical/product that is used in the Mariposa County that is subject to these regulations, must be accompanied by a corresponding SDS (a.k.a. MSDS prior to 2015) prior to being utilized in the County. No person or department may purchase or otherwise bring unapproved chemicals/products into County facilities.

The Facilities and Recreation Services Manager is responsible for obtaining the SDSs, reviewing them for completeness, and maintaining the data sheet system for our County. In the review of incoming data sheets, if new and significant health/safety information becomes available, this new information is passed on **immediately** to the affected employees by additional training sessions, posting of memos, and other means of communication.

Adopted 6/20/17 with Res. 2017-402
Amended 3/7/23 with Res. 2023-124

Legible SDS copies for all hazardous substances to which employees of this organization may be exposed are kept in every location hazardous substances are as well as with the Facilities and Recreation Services Manager.

SDSs are readily available for review by all employees in their work area and during each work shift. The County may make SDS's available in electronic format or other means. Employees may access these SDS's at any time and may print a paper copy of the SDS as needed without charge.

If SDSs are missing or new hazardous substances in use do not have SDSs or if an SDS is obviously incomplete, please contact The Facilities and Recreation Services Manager immediately, and a new SDS will be requested directly from the manufacturer.

METHODS OF COMMUNICATION

Mariposa County will communicate chemical hazards, substances, emergency procedures, labeling systems, SDS location, precautionary measures and other information about this program to employees, contractors and other affected persons through a variety of means, including training sessions, this written program, memos, signage, labels, and direct conversations between supervisors and employees.

LABELS AND OTHER FORMS OF WARNING

Before hazardous substance containers are released to the work area, it is the policy of the County that The Facilities and Recreation Services Manager will verify all primary and secondary containers are labeled as follows:

Label Information	*Primary Container*	*Secondary Container*
Identity of the hazardous substance(s)	✓	✓
Applicable hazard warnings	✓	✓
Name and address of the manufacturer	✓	

To address exposures to Proposition 65 chemicals, The Facilities and Recreation Services Manager will provide clear and reasonable warnings to individuals prior to exposure by means of posting signs conspicuously, labeling consumer products, and training employees.

If applicable, The Facilities and Recreation Services Manager will arrange for labels, signs, and other warnings to be printed in other languages.

Labels will contain the following information:

A. Product identifier;

B. Signal word;

C. Hazard statement(s);

D. Pictogram(s);

E. Precautionary statement(s); and,

F. Name, address, and telephone number of the manufacturer, importer, or other responsible party.

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.

DAY-USE CONTAINERS

Employees who need to use small quantities of a chemical/product during a single shift may transfer the chemical to a smaller manufacturer approved vessel/container without a label under the day-use provisions of the standard. Employees who do use day-use containers must maintain the container in a safe manner throughout the day and must not leave the container unattended. In addition, all day-use containers must be emptied and properly disposed of at the end of the shift or end of use, whichever comes first, or must be properly labeled (as indicated above) and stored.

To ensure the safety of all employees, under no circumstances may day-use containers be made from consumable beverage containers, such as, soda cans, water bottles, juice containers, milk containers, or other like bottles, cans and jugs.

The Risk Management Officer will ensure that suitable day use containers are available by working with each Department Manager.

EMPLOYEE INFORMATION AND TRAINING

Employees are to attend a health and safety training session set up by The Facilities and Recreation Services Manager prior to starting work. This training session will provide information on the following:

- The requirements of the hazard communication regulation, including the employees' rights under the regulation
- The location and availability of the written hazard communication program
- Any operation in their work area, including non-routine tasks, where hazardous substances or Proposition 65 carcinogens/reproductive toxins are present and exposures are likely to occur

- Methods and observation techniques used to determine the presence or release of hazardous substances in the work area
- Protective practices the organization has taken to minimize or prevent exposure to these substances
- How to read labels and review SDSs to obtain hazard information
- Physical and health effects of the hazardous substances
- Symptoms of overexposure
- Measures employees need to put into practice to reduce or prevent exposure to these hazardous substances by engineering controls, work practices, and use of personal protective equipment
- Emergency and first aid procedures to follow if employees are exposed to hazardous substances
- The location and interpretation, if needed, of warning signs or placards to communicate that a chemical known to cause cancer or reproductive toxicity is used in the workplace

Employees will receive additional training when a new hazard or new substance is introduced into the workplace or whenever employees might be exposed to hazards at another employer's work site.

PROP 65 SIGNAGE

While the County is not subject to the provisions of Prop 65 under Cal-OSHA's Hazard Communication program, the County is voluntarily complying with the signage posting requirements of Prop 65.

HAZARDOUS NON-ROUTINE TASKS

Periodically, you may be required to perform hazardous non-routine tasks. Prior to starting work on such projects, affected employees will be given information by their supervisor on hazards to which they may be exposed during such an activity. This may include reviewing the Job Hazard Analysis.

This information will cover:

- Specific hazards and substances
- Measures the organization has taken to reduce the risk of these hazards, such as providing ventilation, ensuring the presence of another employee, providing a respiratory protection program, and establishing emergency procedures
- Required protective/safety measures

Examples of non-routine tasks performed by employees of this organization:

Sample Non-routine Task	*Hazardous Substance*
Applying pesticides	

LABELED/UNLABELED PIPES (IF APPLICABLE)

Aboveground pipes transporting hazardous substances (gases, vapors, liquids, semi-liquids, or plastics) are identified in accordance with 8 CCR, Section 3321, "Identification of Piping." Other aboveground pipes that do not contain hazardous substances but may have associated hazards if disturbed or cut (e.g., steam lines, oxygen lines) are addressed as follows:

Before employees enter the area and initiate work, The Facilities and Recreation Services Manager will inform them of:

- The location of the pipe or piping system or other known safety hazard
- The substance in the pipe
- Potential hazards
- Safety precautions

INFORMING CONTRACTORS

To ensure outside contractors work safely in our facilities and to protect our employees from chemicals/substances used by outside contractors, The Facilities and Recreation Services Manager is responsible for giving and receiving (via U.S. Mail, email, and/or trainings) the following information from contractors prior to the use of any chemical substances in the County:

- Hazardous substances, including Proposition 65 chemicals, to which they may be exposed while on the job site as well as substances they will be bringing into the workplace. (To this end, we will provide contractors with information on our labeling system and access to SDSs.)
- Precautions and protective measures the employees may take to minimize the possibility of exposure

LABELS AND OTHER FORMS OF WARNINGS

Any container in the work place that holds a hazardous substance is required to have a proper identification label. Any container into which a hazardous substance has been transferred from a properly labeled container must also bear the appropriate label. Employees should not use substances from unlabeled containers. A label on any container received from the manufacturer or supplier must include, at least, the following information:

1. Name of the product/substance.
2. A list of the hazardous ingredients.
3. The appropriate hazard warning(s) (flammable, toxic, corrosive, or oxidizer).
4. Manufacturer's or supplier's name and address.
5. Manufacturer's phone/contact information.

If a substance is transferred from its original container to another container (secondary container) a label must be affixed to that new container. The new label must contain at least the following information:

1. Name of the product/substance.
2. The appropriate hazard warning(s) (flammable, toxic, corrosive, or oxidizer).
3. Manufacturer's or supplier's name and address.
4. Manufacturer's phone/contact information.

Supervisors, administrators and department heads are responsible for ensuring that the containers in their work area remain properly labeled and that the employees understand the labels.

TOXICITY AND EXPOSURE

Toxic substances or chemicals are considered toxic if they can cause either short-term (acute) or long-term (chronic) health effects. A toxic substance is a health hazard only when it has entered the body; however, there is no substance or chemical that is completely nontoxic.

Toxicity is dependent on several factors, including route of entry, degree of exposure, length of exposure, concentration of chemical, and a person's susceptibility. Toxicity is also affected by human factors such as age, diet, heredity, lifestyle, and exposures to other chemicals. The entry point of a toxic substance is commonly referred to as the "route of entry." Because no substance has the same route of entry, it is important for employees to review the SDS to become aware of the entry routes for the

chemicals they may be working with. Exposure to toxic substances may occur through the following routes: absorption, ingestion, inhalation, or injection.

1. Absorption - This is the most common of the four routes of entry. Absorption takes place as the chemical comes in contact with the skin and destroys some of the protective outer layer, thus allowing the toxic chemical to come in contact with the inner tissues and possibly the bloodstream.

2. Inhalation - Toxic substances can create dusts, fumes, mists, vapors, and smoke that can become airborne and affect the air being inhaled. The toxic substance is thus allowed to enter the respiratory tract through the nose and mouth and move downward through the windpipe and into the lungs.

3. Ingestion - A toxic material when ingested is absorbed through the stomach and intestines into the bloodstream. The bloodstream may carry the toxic substance to the liver, which may or may not be able to detoxify all of the toxic materials. Liver cells may be destroyed.

4. Injection - Exposure to toxic chemicals by injection occurs very seldom. However, injection can occur as the result of puncturing the skin with glass, metals, or other materials that are contaminated by toxic substances, or when syringes contain toxic substances.

Exposures to toxic substances are the result of many factors, including:

1. Lack of qualified personnel.

2. Insufficient training.

3. Not following safety procedures.

4. Not using proper personal protection equipment.

5. Failure or misuse of personal protection equipment.

6. Failure to decontaminate after a spill or splash.

The concentration of the toxic substance is based on the dose a person receives over a specific time. The effect of a substance is a result of the dose received and the toxicity of the substance. The concentration and effect of toxic substances has prompted OSHA to issue and enforce Permissible Exposure Limits (PEL). In addition, the American Conference of Governmental Industrial Hygienists (ACGIH) also produces a list of what they refer to as Threshold Limit Values (TLVs) for common chemicals used in the workplace. These TLVs are meant as guides to ensure that employees are not exposed to a toxic substance more than is necessary.

PURCHASING HAZARDOUS SUBSTANCES

An effectively managed hazardous materials program begins with the appropriate purchasing controls. Because disposal of hazardous substances is becoming increasingly costly, substances used by all County should only be purchased in quantities necessary to do a job. The purchaser, in conjunction with the Department Head, will be responsible for obtaining an SDS for each hazardous substance that is ordered/ delivered.

If at any time a substance containing an extremely hazardous or acutely toxic substance (as defined in the California Code of Regulations and the Federal Code of Regulations) is requested to be purchased, the requestor should provide the following information to the Public Works Department:

A. A written statement demonstrating an overwhelming need for that substance.

B. A comprehensive, written safety program detailing the storage procedures; who will use this chemical and under what conditions; how unauthorized personnel will be kept from using or handling the substance; the necessary safety precautions and emergency procedures associated with using the substance; expected shelf life of substance; and how disposal of substance will be handled.

The Department Head shall coordinate with the Risk Management Office on the use and approval of the product to be purchased. If it is determined that all of the safety rules for its use can be met, the substance may be purchased. If subsequent findings determine the substance is not being used according to the rules set, the privilege to use it will be immediately revoked. The quantity to be purchased for this type of special request will be no more than what can be used during one year.

HANDLING AND STORAGE OF HAZARDOUS SUBSTANCES

Each hazardous substance should be handled, used, and stored in accordance with the information provided by the manufacturer through its container labels, SDSs, and other standards of practice. Hazardous substances should be handled only with proper protective equipment and only under the proper conditions.

The proper storage of hazardous substances is as important as their proper handling. Inadequate storage space can result in overcrowding and the storage of incompatible chemicals. Shelf-stored hazardous substances should be visually checked on a regular basis by the department chairperson (or designee). This visual inspection will help identify those substances that may be leaking, have corroded caps, or have developed other problems which indicate that they should be immediately disposed of in a safe manner. Storage shelves and cabinets should have sufficient lips, edges or restraints to prevent bottles or other containers of hazardous substances from falling.

DISPOSAL PROCEDURES FOR HAZARDOUS SUBSTANCES/WASTES

The proper disposal of hazardous substances is the responsibility of all employees. Hazardous substances must not be disposed of into the sanitary sewer system (e.g., sink). Once a hazardous substance is determined to no longer be useful to the site or department staff, it shall require proper disposal.

The employee shall notify the Risk Management Officer (or designee) that such removal is necessary. The same employee, or supervisor then completes and submits the Request to Remove Used Chemical Form along with an inventory of those items designated for removal that includes the quantity, location and their condition. See Appendix D for the form to Request to Remove Used Chemical(s).

Hazardous waste if so designated shall be removed under contract with a licensed company. Maintaining all documentation and manifests created for any such removal is the responsibility of the Risk Management Office who should receive all original documents.

REFERENCES

Agency	***Section***	***Link***
Cal-OSHA	Title 8	https://www.dir.ca.gov/samples/search/query.htm
Cal-OSHA	5194	https://www.dir.ca.gov/title8/5194.html

If anyone has questions about this plan, please contact the Facilities and Recreation Services Manager.

Our plan will be maintained by the Facilities and Recreation Services Manager to ensure the policies are carried out and the plan is effective.

_____

(Signature of xxxx)

Attachment A

Hazardous Substance Inventory List

Hazardous Substance	***Facility***	***SDS*** ***Indicate whether complete or incomplete***
Comet	*Ag, Govt. Ctr. & Hall of Records*	*Complete*
Spray Pak	*Public Works/Engineering*	*Complete*
Misty (Disinfectant)	*Public Health & Library*	*Complete*
Windex	*District Attorney & HHSA*	*Complete*
Liquid Swabby	*Probation/Juvenile Hall*	*Complete*
Bleach	*County Fire & Jail*	*Complete*
Lemon Pine Sol	*Child Support Svs. & Sheriff Admin.*	*Complete*
Hillyard Tile/Grout Cleaner	*Public Health & HHSA*	*Complete*
Carpet Spotter Gel	*Probation/Admin.*	*Complete*
Entral Pine Cleaner	*OES &, County Fire*	*Complete*
Resolve Stain Cleaner	*Govt. Ctr./Building Dept.*	*Complete*
Mr. Clean Pro	*Library & Child Support Svs.*	*Complete*
Instant Carpet Spot Remover	*HHSA & Public Health*	*Complete*
Surface Disinfectant	*Sheriff Admin. & Sheriff Dispatch*	*Complete*
Multi Surface Furniture Polish	*Govt. Ctr. & Hall of Records*	*Complete*
Lysol Disinfectant Wipes	*Public Works/Fleet*	*Complete*
Alphet E-3 Hand Sanitizer	*Jail & HHSA*	*Complete*

Attachment B

Hazard Communication Employee Training Program

ORGANIZATION: **NAME** DATE: **DATE**

DEPARTMENT: **NAME**

We have developed a training program to increase employee awareness of hazardous substances in our workplace and to motivate employees to protect themselves. The training program is based on the types of hazardous substances used at the work site and the associated hazards.

Overview of Hazard Communication Regulation
The hazard communication regulation is intended to ensure both employers and employees understand the dangers associated with hazardous substances in the workplace. The following information is a review of the specific requirements of a hazard communication program, including container labeling, SDSs, and training.

Written Hazard Communication Program
We have a written program that outlines how we provide information on and control your adverse exposure to hazardous substances. This plan is available to you during our training and during your work shift from **PERSON** at **LOCATION**.

Hazardous Substances Used in Our Workplace
In our County we use a variety of chemical products. Most of these products contain one or more hazardous substances. Let's review the hazardous substance inventory list in your work area. For specific hazard information on each brand of material, review the SDSs and, if applicable, the Proposition 65 list of chemicals.

Reading Labels, Warnings, and SDSs
Labels - A product label on both the original and secondary containers should be read before working with the material. Each label has two important pieces of information:

1. Identity of the hazardous substance
2. Hazard warnings

The label on the original container also gives the name and address of the manufacturer.

The label should act as a visual reminder of the information we have presented in this training session and of the detailed information on the SDS.

Proposition 65 warnings. These are provided to you prior to exposure in the form of labels, placards, employee training, and the like so you know certain chemicals in your workplace are known to the state to cause cancer, birth defects, or other reproductive harm.

It is essential to your safety that you read the hazard warning and use the hazardous substances only within the prescribed guidelines. Questions concerning any of the warning message(s) should be directed to your supervisor or foreman.

SDSs - Manufacturers and importers are responsible for providing us with adequate information for using the hazardous substances safely. We use SDSs as the primary source for informing you about the hazards of the substances in our facilities. SDSs are kept at **LOCATION** and are readily available to you in every shift.

You will be trained on the specific hazards of the substances in **your** work area. You will also be trained on how to read the information in the SDSs. The information includes:

(A) Section 1, Identification;
(B) Section 2, Hazard(s) identification;
(C) Section 3, Composition/information on ingredients;
(D) Section 4, First-aid measures;
(E) Section 5, Fire-fighting measures;
(F) Section 6, Accidental release measures;
(G) Section 7, Handling and storage;
(H) Section 8, Exposure controls/personal protection;
(I) Section 9, Physical and chemical properties;
(J) Section 10, Stability and reactivity;
(K) Section 11, Toxicological information;
(L) Section 12, Ecological information;
(M) Section 13, Disposal considerations;
(N) Section 14, Transport information;
(O) Section 15, Regulatory information; and
(P) Section 16, Other information, including date of preparation or last revision.

You can read the California hazard communication regulation for additional information on any specific program element.

Attachment C

SDS Request Letter Sample

Date: **DATE**

Chemical Organization or Distributor: **NAME**

RE: SDS for **PRODUCT(S)**

Please send me an up-to-date copy of your safety data sheet (SDS) for the above product(s). The SDS is needed for compliance with the State of California Hazard Communication Regulation, Title 8, *California Code of Regulations,* Section 5194.

Please send the SDS to:

NAME
ORGANIZATION NAME
ADDRESS

If this product does not require an SDS, please notify us in writing.

If you have any questions regarding our request, please contact **NAME AND PHONE NUMBER**.

Sincerely,

ENTITY REPRESENTATIVE

APPENDIX A

Glossary

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

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 chemical for the purpose of conducting a hazard evaluation.

COMMON NAME: Any designation or identification such as code name, code number, trade name, branch name or generic name used to identify a chemical other than by its chemical name.

CONTAINER: Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

EMPLOYEE: Any employee who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers, such as office workers or bank tellers, who encounter hazardous chemicals only in non-routine and or isolated instances are not covered.

EXPOSURE OR EXPOSED: An employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption).

FORESEEABLE EMERGENCY: 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.

HAZARD WARNING: 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).

HAZARDOUS CHEMICAL: Any chemical which is a physical hazard or a health hazard.

HEALTH HAZARD: A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, 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 (SDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the SDS.

IMMEDIATE USE: 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.

LABEL: Any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

LABORATORY SCALE: Work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

LABORATORY USE OF HAZARDOUS CHEMICALS: Handling or use of such chemicals in which all of the following conditions are met: (i) Chemical manipulations are carried out on a "laboratory scale"; (ii) Multiple chemical procedures or chemicals are used; (iii) The procedures involved are not part of a production process, nor in any way simulate a production process; and (iv) Protective laboratory practices and equipment are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

MATERIAL SAFETY DATA SHEET (SDS): Written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of 29 CFR 1910.1200, to be provided by the manufacturer, importer, or distributer of the chemical.

PHYSICAL HAZARD: A chemical 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.

USE: To package, handle, react, emit, extract, generate as a byproduct, or transfer.

WORK AREA: A room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

WORKPLACE: An establishment, job site, or project, at one geographical location, containing one or more work areas.

APPENDIX B
Sections of the Safety Data Sheet under GHS

Section 1: Identification

This section identifies the chemical on the SDS as well as the recommended uses. It also provides the essential contact information of the supplier. The required information consists of:

- Product identifier used on the label and any other common names or synonyms by which the substance is known.
- Name, address, phone number of the manufacturer, importer, or other responsible party, and emergency phone number.
- Recommended use of the chemical (e.g., a brief description of what it actually does, such as flame retardant) and any restrictions on use (including recommendations given by the supplier).

Section 2: Hazard(s) Identification

This section identifies the hazards of the chemical presented on the SDS and the appropriate warning information associated with those hazards. The required information consists of:

- The hazard classification of the chemical (e.g., flammable liquid, category[1]).
- Signal word.
- Hazard statement(s).
- Pictograms (the pictograms or hazard symbols may be presented as graphical reproductions of the symbols in black and white or be a description of the name of the symbol (e.g., skull and crossbones, flame).
- Precautionary statement(s).
- Description of any hazards not otherwise classified.
- For a mixture that contains an ingredient(s) with unknown toxicity, a statement describing how much (percentage) of the mixture consists of ingredient(s) with unknown acute toxicity. Please note that this is a total percentage of the mixture and not tied to the individual ingredient(s).

[1] Chemical, as defined in the HCS, is any substance, or mixture of substances.

Section 3: Composition/ Information on Ingredients

This section identifies the ingredient(s) contained in the product indicated on the SDS,

including impurities and stabilizing additives. This section includes information on substances, mixtures, and all chemicals where a trade secret is claimed. The required information consists of:

Substances

- Chemical name.
- Common name and synonyms.
- Chemical Abstracts Service (CAS) number and other unique identifiers.
- Impurities and stabilizing additives, which are themselves classified and which contribute to the classification of the chemical.

Mixtures

- Same information required for substances.
- The chemical name and concentration (i.e., exact percentage) of all ingredients which are classified as health hazards and are:
  - Present above their cut-off/concentration limits or
  - Present a health risk below the cut-off/concentration limits.
- The concentration (exact percentages) of each ingredient must be specified except concentration ranges may be used in the following situations:
  - A trade secret claim is made,
  - There is batch-to-batch variation, or
  - The SDS is used for a group of substantially similar mixtures.

Chemicals where a trade secret is claimed

- A statement that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required.

Section 4: First-Aid Measures

This section describes the initial care that should be given by untrained responders to an individual who has been exposed to the chemical. The required information consists of:

- Necessary first-aid instructions by relevant routes of exposure (inhalation, skin and eye contact, and ingestion).
- Description of the most important symptoms or effects, and any symptoms that are acute or delayed.
- Recommendations for immediate medical care and special treatment needed, when necessary.

Section 5: Fire-Fighting Measures

This section provides recommendations for fighting a fire caused by the chemical. The required information consists of:

- Recommendations of suitable extinguishing equipment, and information about extinguishing equipment that is not appropriate for a particular situation.
- Advice on specific hazards that develop from the chemical during the fire, such as any hazardous combustion products created when the chemical burns.
- Recommendations on special protective equipment or precautions for firefighters.

Section 6: Accidental Release Measures

This section provides recommendations on the appropriate response to spills, leaks, or releases, including containment and cleanup practices to prevent or minimize exposure to people, properties, or the environment. It may also include recommendations distinguishing between responses for large and small spills where the spill volume has a significant impact on the hazard. The required information may consist of recommendations for:

- Use of personal precautions (such as removal of ignition sources or providing sufficient ventilation) and protective equipment to prevent the contamination of skin, eyes, and clothing.
- Emergency procedures, including instructions for evacuations, consulting experts when needed, and appropriate protective clothing.
- Methods and materials used for containment (e.g., covering the drains and capping procedures).
- Cleanup procedures (e.g., appropriate techniques for neutralization, decontamination, cleaning or vacuuming; adsorbent materials; and/or equipment required for containment/clean up)

Section 7: Handling and Storage

This section provides guidance on the safe handling practices and conditions for safe storage of chemicals. The required information consists of:

- Precautions for safe handling, including recommendations for handling incompatible chemicals, minimizing the release of the chemical into the environment, and providing advice on general hygiene practices (e.g., eating, drinking, and smoking in work areas is prohibited).
- Recommendations on the conditions for safe storage, including any incompatibilities. Provide advice on specific storage requirements (e.g., ventilation requirements).

Section 8: Exposure Controls/Personal Protection

This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure. The required information consists of:

- OSHA Permissible Exposure Limits (PELs), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.
- Appropriate engineering controls (e.g., use local exhaust ventilation, or use only in an enclosed system).
- Recommendations for personal protective measures to prevent illness or injury from exposure to chemicals, such as personal protective equipment (PPE) (e.g., appropriate types of eye, face, skin or respiratory protection needed based on hazards and potential exposure).
- Any special requirements for PPE, protective clothing or respirators (e.g., type of glove material, such as PVC or nitrile rubber gloves; and breakthrough time of the glove material).

Section 9: Physical and Chemical Properties

This section identifies physical and chemical properties associated with the substance or mixture. The minimum required information consists of:

- Appearance (physical state, color, etc.);
- Upper/lower flammability or explosive limits;
- Odor;
- Vapor pressure;
- Odor threshold;
- Vapor density;
- pH;
- Relative density;
- Melting point/freezing point;
- Solubility(ies);
- Initial boiling point and boiling range;
- Flash point;
- Evaporation rate;
- Flammability (solid, gas);
- Upper/lower flammability or explosive limits;
- Vapor pressure;
- Vapor density;

- Relative density;
- Solubility(ies);
- Partition coefficient: n-octanol/water;
- Auto-ignition temperature;
- Decomposition temperature; and
- Viscosity.

The SDS may not contain every item on the above list because information may not be relevant or is not available. When this occurs, a notation to that effect must be made for that chemical property. Manufacturers may also add other relevant properties, such as the dust deflagration index (Kst) for combustible dust, used to evaluate a dust's explosive potential

Section 10: Stability and Reactivity

This section describes the reactivity hazards of the chemical and the chemical stability information. This section is broken into three parts: reactivity, chemical stability, and other. The required information consists of:

Reactivity

- Description of the specific test data for the chemical(s). This data can be for a class or family of the chemical if such data adequately represent the anticipated hazard of the chemical(s), where available.

Chemical stability

- Indication of whether the chemical is stable or unstable under normal ambient temperature and conditions while in storage and being handled.
- Description of any stabilizers that may be needed to maintain chemical stability.
- Indication of any safety issues that may arise should the product change in physical appearance.

Other

- Indication of the possibility of hazardous reactions, including a statement whether the chemical will react or polymerize, which could release excess pressure or heat, or create other hazardous conditions. Also, a description of the conditions under which hazardous reactions may occur.
- List of all conditions that should be avoided (e.g., static discharge, shock, vibrations, or environmental conditions that may lead to hazardous conditions).
- List of all classes of incompatible materials (e.g., classes of chemicals or specific substances) with which the chemical could react to produce a hazardous situation.
- List of any known or anticipated hazardous decomposition products that could be produced because of use, storage, or heating. (Hazardous combustion products should also be included in Section 5 [Fire-Fighting Measures] of the SDS.)

Section 11: Toxicological Information

This section identifies toxicological and health effects information or indicates that such data are not available. The required information consists of:

- Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact). The SDS should indicate if the information is unknown.
- Description of the delayed, immediate, or chronic effects from short- and long-term exposure.
- The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose)) - the estimated amount [of a substance] expected to kill 50% of test animals in a single dose.
- Description of the symptoms. This description includes the symptoms associated with exposure to the chemical including symptoms from the lowest to the most severe exposure.
- Indication of whether the chemical is listed in the National Toxicology Program (NTP) 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 found to be a potential carcinogen by OSHA

Section 12: Ecological Information (non-mandatory)

This section provides information to evaluate the environmental impact of the chemical(s) if it were released to the environment. The information may include:

- Data from toxicity tests performed on aquatic and/or terrestrial organisms, where available (e.g., acute or chronic aquatic toxicity data for fish, algae, crustaceans, and other plants; toxicity data on birds, bees, plants).
- Whether there is a potential for the chemical to persist and degrade in the environment either through biodegradation or other processes, such as oxidation or hydrolysis.
- Results of tests of bioaccumulation potential, making reference to the octanol-water partition coefficient (Kow) and the bioconcentration factor (BCF), where available.
- The potential for a substance to move from the soil to the groundwater (indicate results from adsorption studies or leaching studies).
- Other adverse effects (e.g., environmental fate, ozone layer depletion potential, photochemical ozone creation potential, endocrine disrupting potential, and/or global warming potential).

Section 13: Disposal Considerations (non-mandatory)

This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices. To minimize exposure, this section should also refer the reader to Section 8 (Exposure Controls/Personal Protection) of the SDS.

The information may include:

- Description of appropriate disposal containers to use.
- Recommendations of appropriate disposal methods to employ.
- Description of the physical and chemical properties that may affect disposal activities.
- Language discouraging sewage disposal.
- Any special precautions for landfills or incineration activities

Section 14: Transport Information (non-mandatory)

This section provides guidance on classification information for shipping and transporting of hazardous chemical(s) by road, air, rail, or sea. The information may include:

- UN number (i.e., four-figure identification number of the substance)[1].
- UN proper shipping name[1].
- Transport hazard class(es)[1].
- Packing group number, if applicable, based on the degree of hazard[2].
- Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code)).
- Guidance on transport in bulk (according to Annex II of MARPOL 73/78[3] and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code)).
- Any special precautions which an employee should be aware of or needs to comply with, in connection with transport or conveyance either within or outside their premises (indicate when information is not available).

Section 15: Regulatory Information (non-mandatory)

This section identifies the safety, health, and environmental regulations specific for the product that is not indicated anywhere else on the SDS. The information may include:

- Any national and/or regional regulatory information of the chemical or mixtures (including any OSHA, Department of Transportation, Environmental Protection Agency, or Consumer Product Safety Commission regulations)

Section 16: Other Information

This section indicates when the SDS was prepared or when the last known revision was made. The SDS may also state where the changes have been made to the previous version. You may wish to contact the supplier for an explanation of the changes. Other useful information also may be included here.

APPENDIX C

Some General Guidelines for Storing Chemicals from Specific Hazard Classes

Note: Chemicals shall not be stored alphabetically across hazard classes

Flammable Liquids

Conditions for Storage: Store in a cool place away from heat, sun or source of ignition. Automatic fire detection equipment and spray devices should be used. Adequate ventilation should be provided to prevent vapor buildup. Use approved storage cabinets or safety cans for flammable liquids. Ground metal containers.

Store away from: Oxidizers, chemicals capable of spontaneous heating, explosives, materials that react with air or moisture to liberate heat, and ignition sources.

Corrosive Chemicals

Conditions for Storage: Separate acids from bases. Separate oxidizing acids (e.g. nitric acid) from other acids. Cabinets should be non-corroding or covered with fume resistant paint. Corrosives should not be stored above eye level. Use bottle carriers for transporting containers of corrosives. Have spill control pillows and neutralizing materials readily available.

Store away from: Toxic materials, active metals (sodium, magnesium, etc…), substances that release corrosive, toxic or flammable fumes on reaction, organic materials, flammable substances, and uncoated structural materials.

Toxic Chemicals

Conditions for Storage: Store away from heat, moisture and fire hazard areas. Protect from contamination with acids and fumes.

Store away from: Acids and other corrosives, reactive chemicals, fire hazards, heat, and moisture.

Reactive Chemicals

Conditions for Storage: A fire sprinkler, except where water sensitive chemicals are stored. Protect from extremes of temperature and rapid changes in temperature. Store oxidizers away from flammable or combustible materials, and away from reducing agents such as zinc and alkaline earth metals. Store peroxide-forming chemicals in airtight containers and label with receiving and disposal dates (these chemicals can form explosive peroxides that can be detonated by shock or heat). Store light sensitive chemicals in amber bottles.

Store away from: Organic materials, flammable materials, corrosives, and toxic materials.

Water and Air Sensitive Chemicals

Conditions for Storage: Store in waterproof, fire-resistant cabinet or room. Smoke and/or heat detector should be provided in storage area. Eliminate all ignition sources.

Store away from: Water and moist air, solutions of aqueous acids and bases, flammable storage area, and reactive chemicals.

APPENDIX D

Request to Remove Used Chemicals (Page ____ of ____)
(Complete and submit to the Risk Management Office)

Department: _____ Date: _____

Contact Person: _____ Email: _____

Use this form to initiate the removal process for any used chemicals no longer to be kept on County premises. List each used chemical container as a separate item in the box below (be sure the container is properly labeled).

Building Location: _____

Form (circle one): solid liquid gas solution

Quantity (oz., gallons, pounds, etc…) _____

Chemical name: _____

Contents: _____

_____

Building Location: _____

Form (circle one): solid liquid gas solution

Quantity (oz., gallons, pounds, etc…) _____

Chemical name: _____

Contents: _____

_____

Building Location: _____

Form (circle one): solid liquid gas solution

Quantity (oz., gallons, pounds, etc…) _____

Chemical name: _____

Contents: _____

_____

Signature of person filing this request: _____

Signature of Department Head: _____

Signature of Facilities Manager: _____

Questions: Please contact Risk Management Office