ORANGE COUNTY SANITATION DISTRICT	SOP-607 (Ver. 4) Hazard Communication
Standard Operating Procedure (SOP)	Effective: 1/25/2022 Supersedes: 11/02/2020
Approved By: James D. Herberg General Manager 	

I. Purpose

The purpose of Orange County Sanitation District (OC SAN) Hazard Communication Program is to establish methods to inform and educate employees on chemical hazards in the workplace.

This program applies to all OC SAN employees, contract employees, contractors, and visitors involved in the purchase, use, or storage of hazardous materials/substances.

This program is based on a simple concept, that employees have both a need and a right to know and understand the hazards and the identities of the chemicals they are exposed to in the workplace. By making job-specific hazard information available to employers and employees, and implementing recommended precautions for safe use, the result will be a reduction in illnesses and injuries caused by chemical exposure.

II. Background

OC SAN will reduce the use of hazardous products whenever feasible. Any hazardous product being considered for use shall be evaluated to ensure it is appropriate and the safest viable alternative for the intended use.

The *Globally Harmonized System of Labelling and Classification of Chemicals* (GHS) provisions to Federal OSHA's Hazard Communication Standard (CFR 1910.1200) and California OSHA's Hazard Communication Standard (Title 8 CCR Section 5194) are included in this policy.

III. Definitions

Action Level: concentration designated in 29 CFR part 1910 for a specific substance, calculated as an eight (8)-hour time-weighted average, which initiates certain required activities such as exposure monitoring and medical surveillance.

Acute Toxicity: adverse effects resulting from a single exposure to a substance.
Carcinogen: A chemical substance or a mixture of chemical substances which induce cancer or increase its incidence.

Chemical: Any compound, mixture or solution that may be hazardous by virtue of its properties.

Container: Any bag, barrel, bottle, can, cylinder, drum, reaction vessel, storage tank, tank truck, or the like that contains a hazardous substance. For purposes of this document, pipes and piping are not considered to be containers.

Designated Representative: Any individual or organization to which an employee gives written authorization to exercise such employee's rights.

Explosives: A solid or liquid which is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.

Eye Irritation: Application of a substance to the surface of the eye and the effects are fully reversible within 21 days of application.

Flammable Aerosols: Any flammable gas compressed, liquefied, or dissolved under pressure within a non-refillable container.

Flammable Gas: A gas that can catch fire.

Flammable Liquid: A liquid that can catch fire.

Flammable Solid: A solid that is readily combustible or may cause or contribute to fire through friction.

Gas: A substance or mixture which at 50°C has a vapor pressure greater than 300 kPa; or is completely gaseous at 20°C and a standard pressure of 101.3 kPa.

Gases Under Pressure: Gases that are contained in a receptacle at a pressure not less than 280 Pa at 20 C as a refrigerated liquid.

Globally Harmonized System of Classification and Labeling of Chemicals (GHS): A system for standardizing and harmonizing the classification and labelling of chemicals worldwide. GHS is a modification to OSHA's Hazard Communication Standard.

Hazardous Materials/Substances: Any material which is a physical hazard or a health hazard or is included in the List of Hazardous Substances prepared by the California Department of Industrial Relations.

Hazard Not Otherwise Classified (HNOC): adverse physical or health effect identified through evaluation of scientific evidence during the classification. process that does not meet the specified criteria for the physical and health hazard classes.

Hazard Warnings: 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).

Health Hazard: The term "health hazard" includes substance which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, or any other agents which cause health effects.

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

Liquid: A substance or mixture that is not a gas and which has a melting point or initial melting point of 20°C or less at standard pressure of 101.3 kPa.

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

Mixture: A combination or solution composed of two or more substances in which they do not react.

National Institute of Occupational Health and Safety (NIOSH): NIOSH is responsible for conducting research and making recommendations for the prevention of work-related injury and illness.

Organic Peroxides: An organic liquid or solid that may be liable to explosive decomposition, rapid burning, sensitivity to impact or friction, dangerously reaction with other substances.

Oxidizing Gas: Any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.

Oxidizing Liquids: A liquid which, while not necessarily combustible, may cause or contribute to the combustion of another material.

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.

Pyrophoric Liquids and Solids: A liquid or solid which, even in small quantities, is liable to ignite within 5 minutes after encountering air.

Reproductive Toxicity: Includes adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in offspring.

Safety Data Sheets (SDS): Formerly referred to as MSDS, a SDS is the GHS-formatted written or printed material issued by the manufacturer concerning a hazardous substance.

Self-Heating Substance: A solid or liquid which, by reaction with air and without energy supply, is liable to self-heat.

Self-Reactive Substances: Thermally unstable liquids or solids liable to undergo a strongly exothermic thermal decomposition even without participation of oxygen.

Skin Sensitization: A substance that will induce an allergic response following skin contact.

Solid: A substance or mixture that does not meet the definitions of a liquid or a gas.

III. Responsibilities

A. Risk Management Division:

1. Developing a written Program that will comply with the updated requirements of CFR 1910.1200 and T8 CCR, Section 5194.

2. Evaluating and approving all SDS for chemicals prior to purchase.

3. Evaluating all SDS related to contract work. Managing OC SAN's electronic SDS database and inventory listing of all chemicals at OC San.

4. Maintaining SDS in accordance with the OC SAN records retention protocol.

5. Providing secondary container label guidance to all employees.

6. Providing training in accordance with the provisions of this program.

7. Conducting program administration/review in accordance with the provisions of this program.

B. Purchasing and Warehouse Division

1. Selecting vendors and establishing contracts or purchase orders to procure chemicals.

2. Procuring only those chemicals for which an approved SDS is on file with the Risk Management Division.

3. Ensuring all packages are labeled at the time of delivery and free from any damage or leaking.

C. Supervisors

1. Ensuring an approved SDS is in the SDS database prior to submitting a procurement request of procuring the material.

2. Ensuring appropriate PPE, as recommended by the SDS, is available for use by the employees.

3. Ensuring employees have access to SDS during working hours.

4. Ensuring employees receive training on the hazardous materials they work with or to which they may be exposed.

5. Conducting inspections of hazardous materials storage areas for leaking or damaged containers.

6. Ensuring hazardous materials storage areas for projects they are coordinating and/or overseeing meet all applicable regulatory and OC SAN requirements.

7. Ensuring all drums are placed on containment pallets; all drums are to be labeled with contents or marked as empty.

D. Environmental Service Laboratories

1. The Environmental Service Laboratories work under an operating philosophy that requires laboratory staff to perform their duties safely, in compliance with Cal/OSHA regulations/OC SAN policy and within the standard of good laboratory practice.

2. All laboratory work performed by OC SAN staff and contractors shall be done within the requirements of the Laboratory Safety and Chemical Hygiene Program.

E. Contractors, Consultants

1. Shall not bring hazardous materials onto any OC SAN facility without approval from Risk Management.

2. The contractor submits all SDS, related the scope of work, to the Risk Management Division as a submittal for the project.

3. Confirm that all project specific SDS have been submitted and approved.

4. Store and label chemicals per GHS.

5. Participate in the safety orientation with Risk Management prior to the start of the project. Any information or use conditions to be shared will the contractor employees and subcontractors, as appropriate.

6. Inform OC SAN if a new or alternate hazardous material/substance is required for completion of the project. An SDS must be submitted to the Risk Management Division prior to bringing it onto the job site.

7. Include all subcontractor chemicals in the SDS submittal.

IV. Chemical Evaluation and Procurement

A. Product Evaluation

1. An effective hazard communication program includes mechanisms for evaluating hazardous substance(s)/material(s).

2. All product(s) containing a hazardous substance must be evaluated and approved by Risk Management and Resource Protection divisions prior to receipt at an OC SAN facility.

3. Divisions requesting use of any applicable chemical/product shall:
   a) Obtain the SDS from the manufacturer and/or distributor (see Procurement section below).
   b) Submit the SDS, via the online New Chemical Request Form process.

B. Product Procurement

1. Each division is responsible for complying with the requirements of this policy before purchasing a new hazardous product or when a sample product is received.

2. To determine if a product has an SDS, the affected division can look up the product on the current online SDS system (Risk Management page).

3. No procurement shall take place until confirmation that the product has been approved by Risk Management and the SDS is on file.

4. If the requestor submits a copy of the SDS approval form with the purchase order, the Purchasing Division may proceed with the procurement of that product.

5. Upon receipt of any hazardous chemical to the warehouse, staff shall ensure that each package is labeled, and the label is readable at the time of delivery, and each package is not damaged and/or leaking.

V. Employee Training

A. The Risk Management Division is responsible for establishing the training curricula and frequency, and for determining the appropriate training media(s) which will be used for the Hazard Communication program.

B. The Sanitation District's SOP-111 contains training requirements for access to medical records to include annual training for the existence, location, and availability of records the person responsible for maintaining records and employee's right to access the records.

C. Periodically, employees are required to perform hazardous non-routine tasks.

D. Prior to initiating such work, affected employees shall be given information, by the applicable division supervisor(s), about the hazards to which they may be exposed.

E. If appropriate, the affected employees shall receive additional training to prepare them for these tasks. The responsible supervisor(s) shall inform the Risk Management Division to cooperatively coordinate the training.

F. Routine hazard communication training curricula shall minimally have the following elements:

1. The requirements of the hazard communication regulation including employee rights (e.g., employees receiving and sharing with their physician information on hazardous chemicals to which they may be exposed).

2. The location Hazard Communication program, inventory of hazardous chemicals, and SDS information.

3. Identification of hazardous chemicals present in employees work area.

4. How to detect the presence or release of hazardous substances.

5. The physical and health hazards of hazardous substances in the work area and ways for employees to protect themselves from exposure.

6. How to read and understand the GHS classification.

7. How to read and understand the GHS labels received on shipped containers, the workplace labeling system, safety data sheets, and how employees can obtain and use the hazard information.

8. How to review the SDS and obtain appropriate chemical health and safety information.

G. Employee training records are maintained by the Risk Management Division. These records shall be kept indefinitely.

H. Employee training on new or revised SDS information must be provided within 30 days of the employer receiving that information.

VI. Hazard Classification

A. Classification is the starting point for hazard communication. It involves the identification of the hazard(s) of a chemical, solution, or mixture. Employees should be familiar with the modified criteria for hazard classification of chemical hazards under the GHS.

B. The GHS uses the term "hazard classification" to indicate that only the intrinsic hazardous properties of substances or mixtures are considered.

C. The data used for classification may be obtained from tests, literature, and practical experience.

VII. Container Labelling

A. All labels shall be clearly visible, readable, and printed in English.

B. All chemical containers shall have labels including the following information:

1. Symbols (hazard pictograms): health, physical and environmental hazard information.

2. Signal Words: Indicates the relative degree of severity for any given hazard. The signal words used in the GHS are danger for the more severe hazards and warning for the less severe hazards.

3. Hazard Statements: Standardized statements and assigned phrases that describe the hazard(s) as determined by hazard classification.

4. Precautionary Statements: Aimed at minimizing or preventing any adverse effects of exposure.

5. Product Identifier (ingredient disclosure): Name or number that is used for a hazardous product on a label or in the SDS.

6. Personal Protective Equipment:

C. No container shall be released for use or transport unless it is properly labeled.

D. Manufacturer’s labels shall not be intentionally removed or defaced in any way. In the event a label is in an unusable condition, the affected employee(s) shall immediately re-label the container per Hazard Communication requirements.

E. OC SAN issued containers that are not originally issued by the manufacturer shall also be properly labeled prior to use or transport. Labels for secondary containers can be obtained from the Risk Management Division. Each employee transferring a hazardous material/substance to a secondary container is responsible for obtaining the proper label for that container.

F. Piping is not considered to be a container. However, due to the nature of our industry, piping containing any chemical/substance related to wastewater treatment process shall be properly labeled.

1. Above-ground pipes transporting hazardous substances (gases, vapors, liquids, semi- liquids, or plastics) shall be identified in accordance with Section 3321.

2. Where identification is required for piping systems, one or more of the following methods shall be employed.

   a) Complete color painting of all visible parts of the pipe.

   b) Color bands, preferably 8 to 10 inches wide, at various intervals and at each outlet valve or connection. Where identification is provided by complete color painting or by color bands, a color code shall be posted at those locations where confusion would introduce hazards to employees.

   c) The names of or abbreviations of the names of the materials transported shall be lettered or stenciled on the pipe near the valves or outlets.

   d) Tags of metal or other suitable material naming the material transported shall be fastened securely to the system on or near the valve. Tag legibility shall be maintained.

G. Proposition 65: Hazardous chemical containers from out of state chemical manufacturers or distributors (who are not subject to Proposition 65) may not have Proposition 65 hazard warnings. California's suppliers/employers must meet the requirement in various ways, including affixing additional Proposition 65 warning labels on containers or posting signs in the workplace. Under Proposition 65, warnings are required for:

1. Consumer product exposures.

2. Occupational exposures.

3. Environmental exposures. Warnings for exposure in the workplace can be communicated by one or a combination of the following:

4. A warning on a product label.

5. A warning or sign posted conspicuously in the workplace.

6. A warning that complies with the federal OSHA Hazard Communication regulation (29 CFR, section 1910.1200), the California Hazard Communication regulation (section 5194), the Pesticides Worker Safety requirements (T3 CCR, Ch. 6, Sub-chapter 3, Group 3, section 6700).

IX. Safety Data Sheets (SDS)

A. Every hazardous material/substance used or stored by or for OC SAN must have a current and corresponding safety data sheet (SDS). All SDS shall be available to all employees through use of the online system.

B. Safety Data Sheets (SDS) alert employers of potential hazards associated with a particular substance and provide information for response in case of an emergency.

The GHS changes the terminology from Material Safety Data Sheet (MSDS) to Safety Data Sheet (SDS). The GHS SDS format includes 16 sections outlined below.

1. Product & Company Identification
2. Hazard Identification
3. Composition / Information on Ingredients
4. First-Aid Measures
5. Fire-Fighting Measures
6. Accidental Release Measures
7. Handling and Storage
8. Exposure Controls/Personal Protection
9. Physical and Chemical Properties
10. Stability and Reactivity
11. Toxicological Information
12. Ecological Information
13. Disposal Considerations
14. Transport Information
15. Regulatory Information
16. Other Information

C. Each SDS must be clearly readable and printed in English. If any of the required information on the SDS is not attainable, it should be noted on the Safety Data Sheet Approval Form and submitted to the Risk Management Division for corrective action. At the completion of any corrective action, the requestor shall receive written confirmation back from the Risk Management Division.

D. All applicable SDS's are housed in an electronic database (vendor provided) managed by the Risk Management Division.

E. The Risk Management Division update the database continuously to ensure it is current. Staff shall immediately notify the Risk Management Division if a desired SDS is not available on the database. In the event an employee's designated representative, Cal/OSHA, NIOSH and/or an employee's physician(s) require an SDS, a written request shall be issued to the Risk Management Division for completion.

F. Within Environmental Science Laboratories (ESL), where complex mixtures have similar hazards and contents (i.e., the chemical ingredients are essentially the

same, but the specific composition varies from mixture to mixture), one SDS may be provided to apply to all these similar mixtures. In this case, the SDS must still be received and submitted to the Risk Management Division for approval as previously outlined in this document.

G. The Risk Management Division will maintain an inventory listing of all chemicals and SDS's used throughout OC SAN. This list shall be continually updated as new SDS's are obtained.

VIII. Program Administration/Evaluation

A. The Hazard Communication Program shall be managed and administered by the Risk Management Division. This Hazard Communication Program shall be evaluated as needed to ensure that it is effective. Program shall be evaluated and updated as Risk Management becomes aware of the need.

B. The program evaluation conducted by the Risk Management Division shall include the following steps:

1. Determine if regulations, national consensus standards and/or OC SAN policy/procedures have changed since the last program review.

2. Revise the Hazard Communication program as necessary to reflect any regulatory, national consensus standards, and/or OC SAN policy/procedures changes referenced above.

IX. Recordkeeping

All records created or generated during this procedure shall be legible and stored in a way that they are readily retrievable in facilities or electronic document/content management systems that provide a suitable environment to prevent damage, deterioration, or loss. Records may be in the form of any type of media, such as hard copy or electronic media. The OC SAN Records Retention Schedule is the official procedure governing the retention, retirement, and destruction of District records. Document owners should use these schedules to determine the item and series that best fit their records. Document owners are responsible for ensuring that documents are properly marked, indexed, and filed for their projects or area of responsibility.

Safety data sheets shall be retained as necessary to comply with the provisions of section 5194. Where safety data sheets are destroyed, a record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used shall be retained for at least thirty years; and 3. Section 3204(c)(5)(D) records concerning the identity of a substance or agent need not be retained for any specified period as long as some record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used is retained for at least thirty years.

X. Reference

Laboratory Chemical Hygiene Program

Injury and Illness Prevention Program

SOP-608, Contractor Safety Programs

Title 8, California Code of Regulations, Section 5194, Hazard Communication

Title 8, California Code of Regulations, Section 3204, Access to Employee Exposure and Medical Records

Title 8, California Code of Regulations, Section 5191, Occupational Exposure to Hazardous Chemicals in Laboratories

OSHA Federal Standard 29 CFR Parts 1910, 1915, 1926, Hazard Communication

XI. Revision History

Version	Date	By	Reason
1	9/14/2009	SW	
2	5/11/2015	PC	GHS revisions included
3	06/22/2020	Hachim, Sabrina	Periodic Update – Refer to Program Change Log
4.0	12/13/2021	Frattali, John	Annual Program Review – Refer to Program Change Log