

Fact Sheet Safety Data Sheets (SDS)/MSDS

What is Safety Data Sheets (SDS)?

Safety Data Sheets previously known as Material Safety Sheet (MSDS) is a document that elaborates on hazards that have specific chemical/ substances. The CSUDH campuses use MSDS/SDS online to store information for employees providing warning for hazardous products and chemicals used on campus. See Appendix A for information on how to access MSDS online.



What are Cal/OSHA regulations?

The Cal/OSHA regulations works with Globally Harmonized System (GHS). As a result, it is required for every new SDS received from the manufacturer:

1. **Identification:** identifies products through label/ description.
 - Other common names, address, phone number, importer, manufacturer, and emergency phone number.
2. **Hazard(s) identification:** identifies hazards of chemicals on the SDS and their warning information associated.
 - Hazard classification: signal word, hazard statement, pictograms, precautionary statements, and descriptions.
3. **Composition/information on ingredients:** identifies ingredients found in the substances and mixtures of all chemical.
 - Substances: chemical names, common name/synonyms, chemical abstracts services (CAS) number, impurities/ stabilization additives.
 - Mixtures: same information as substances, concentration levels, trade secret claim, batch variation, and SDS for similar mixtures.
 - Chemical where a trade secret is claimed: statement that identifies chemical concentration of composition.
4. **First-aid measures:** should be taught to untrained responders and exposed individuals.
 - First aid instructions for exposure includes inhalation, skin and eye contact, and ingestion.
 - Symptom descriptions for an acute or delayed effect, and tips for urgent medical care and special treatments.
5. **Fire-fighting measures:** provides tips for fighting a fire caused by a chemical.
 - Suitable extinguishing equipment, fire extinguisher manual, advice for specific hazards made by the chemical during fire (hazardous combustion products, PPE or firefighters precautions).
6. **Accidental release measures:** provides tips for spills (small and large), leaks/releases, handling, and cleaning up procedures for minimizing exposure to workers, property, and environment.
 - Use personal precaution (removal of ignited sources/ ventilation). Use ppe to prevent contamination of eyes, skin, and garments. Use emergency procedures for evacuation, consult experts, cleanup procedures (neutralize, decontaminate, vacuum, etc).
7. **Handling and storage:** provides instructions for safe handling and safe storage of chemicals.
 - Precautions for safe handling and storage (minimize environmental contamination, and provide personal hygiene practices (Prohibition of eating, drinking, smoking in work area).
8. **Exposure controls/personal protection:** indicates exposure limits, engineering controls, and personal protective measures (minimize worker exposure).
 - OSHA Permissible Exposure Limits (PELs), American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values (TLVs), and the exposure limit used by chemical, manufacturer, importer, employer providing the SDS. Engineering controls local exhaust ventilation/enclosed systems. A personal protective measure prevents illness/injury from exposure from chemicals (ppe requires for protective garments or respirators).
9. **Physical and chemical properties:** identifies physical and chemical properties associated with substances/mixtures.
 - Appearances, upper and lower flammability/explosive limits, odor, vapor, odor limit, vapor thickness, pH, relative density, melting/freezing point, soluble, boiling point, flash point, evaporation rate, flammability, partition coefficient, auto ignition, decomposition temperature, and viscosity. (SDS may not have all items on the list or may not be relevant).



10. **Stability and reactivity:** describes hazard reactivity of chemicals.
 - Reactivity describes specific test data for chemicals (class or family of chemical). Chemical stability-indicates if the chemical is stable or not under room temperature and condition while stored/handled. Description for stabilizers safety issues that makes changes in its physical appearance. Other-indicates hazardous reactions, list of conditions that should be avoided, list of incompatible materials, and list of known hazardous decomposition.
11. **Toxicological information:** identifies toxicological and health effects information/ not available information.
 - Addresses possible routes of exposure as (inhalation, ingestion, skin, and eyes). Describes delayed, immediate/chronic effect from short or long-term exposure, numerically measures toxicity, and symptoms. It indicates whether the chemical is listed under (National Toxicology Program (NTP) on carcinogens. The International Agency for Research on Cancer (IARC) studies monographs potentially cancerous.
12. **Ecological information:** provides information for evaluating chemical environmental impacts that were released into the environment.
 - Data from toxicity test, grade of potential harm to the environment, results for bioaccumulation tests (BCF).
13. **Disposal considerations:** provides proper disposal practices for container use, disposal methods, disposal activities (can affect physical and chemical properties), sewage disposal, and special precaution for landfills/incineration activities.
14. **Transport information:** provides tips for classifying information for shipping and transportation of hazardous chemicals (road, air, rail, and sea).
 - Un number, Un shipping name, transport hazard classes, packing group number, environmental hazards, transport in bulk, and special precautions.
15. **Regulatory information:** identifies safety, health, and environmental regulations for products that were not indicated anywhere else on the SDS.
 - Any national/regional regulatory information for chemical/mixtures (OSHA, Department of transportation, EPA, Consumer Product Safety Commission regulations).
16. **Other information, including date preparation or last revision:** indicates when SDS was prepared or the last update made. Contact the supplier for further explanations of changes.
 - Employer Responsibilities- Employees must be sure that the SDS is ready and accessible for hazardous chemicals in the workplace (keep in binder/computer file and keep backup). Employees may designate workers responsibility for keeping/record keeping of the SDS, and if employers do not have an SDS they must contact manufacturer for one.