

Reading a Safety Data Sheet



The SDS (Safety Data Sheet) for each hazardous substance in your work area tells you how to use a chemical safely.

The SDS may include the following information about a chemical:

- Chemical properties
- Physical hazards
- Health hazards
- Environmental health hazards
- Protective measures
- Safety precautions for handling, storing, and transporting each chemical
- Emergency and first-aid procedures

Based on the class or type of chemical used in the workplace, an SDS may have additional information.

Each SDS may look a little different, but all give you the same basic information. The SDS identifies categories or sections you are most likely to see.

Identification

This section give you:

- Common names or synonyms of the chemical or substance
- Name, address, and phone number of the company that developed or supplied the chemical or SDS
- Recommended uses of the chemical

Hazard(s) identification

This includes all hazards involving the chemical, such as:

- Classification of the chemical
- Signal word
- Hazard and precautionary statements
- Pictograms
- Descriptions of any hazards or a mixture that contains an ingredient with an unknown toxicity, if applicable

Composition or information on ingredients

This section identifies the ingredients that contribute to hazards or are considered hazardous by OSHA. Also listed in this section are:

- Substances. The chemical name, the synonym and common names, the chemical abstracts service (CAS) number and other unique identifiers, and impurities and stabilizing additives of the chemical or hazardous components.
- Mixtures. The chemical name, the synonym and common names, the CAS number and other unique identifiers, impurities and stabilizing additives, and the concentration of the chemical or hazardous components.
- Chemical where a trade secret is claimed. A statement is needed.

First-aid measures

This section provides:

- Emergency procedures. These are steps you can take, if needed, before professional medical assistance is available.
- Most important symptoms or effects from the chemical exposure
- Immediate or delayed symptoms or effects from the chemical exposure

Firefighting measures

This section:

- Informs you of the fire and explosive properties of the material, the appropriate extinguishing devices, and the basic firefighting guidelines
- Gives advice on specific hazards (combustion products) that can develop from the chemical fire
- Recommends special protective gear or equipment, if applicable

Accidental-release measures

This section:

- Tells how to contain and clean up a spill, leak, or other release based on the size (large to small) of the chemical spill
- Gives instructions for evacuating the area, when to contact experts, and the use of appropriate protective gear or equipment, based on the size of the chemical spill

Handling and storage

This section discusses safe handling practices that minimize contact between you and the substance. These storage guidelines include risks from fire or reactions with incompatible substances. There may also be information about whether it's safe to eat or smoke around this substance.

Exposure controls and personal protection

This section explains exposure limits, any engineering controls, such as proper ventilation, and personal protective equipment (PPE), such as respiratory protection.

Physical and chemical properties

This section identifies the chemical or substance's characteristics, such as appearance, explosive limits, odor, boiling or melting points, pH, vapor pressure and density, relative density, flammability, and other types of properties based on the class of the chemical or hazardous substance.

Stability and reactivity

This section:

- Describes conditions that could result in a hazardous chemical reaction. This might include contact and reaction with other substances, or environmental conditions to avoid.
- Informs you when the chemical is stable or unstable based on the temperature and conditions in the storage area
- Provides a description of any stabilizers needed to maintain chemical stability, as well as any safety issues when physical changes in the chemical or hazardous substance occur

Toxicologic information

This section:

- Includes information on the routes of exposure and the description of each symptom associated with the chemical exposure
- Delayed, and acute, and chronic effects (short-term and long-term) from the chemical exposure
- Tells you if the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition)
- Tells you if the chemical may be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or by OSHA

Ecological information (if applicable)

This section describes the impact on the environment if a chemical was released in the environment.

Disposal considerations (if applicable)

This section describes the correct disposal, recycling, reclamation, or safe handling guidelines for the chemical or its container.

Transport information (if applicable)

This section describes the correct transportation guidelines for the chemical or hazardous material. This applies to road, air, rail, or sea.

Regulatory information (if applicable)

This section describes the chemical's safety, health, and environmental regulations not included in other categories listed on the SDS.

Other

This section tells you when the SDS was developed and the date of the last revision. It may also tell you where the revision or revisions were made to the updated or current version of the SDS.

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