HazCom Employer's Guide Step 4: Source SDS

What You NEED To Do
The HazCom standard requires employers to ensure that each hazardous chemical used in the workplace have a safety data sheet, or SDS. Your supplier should provide you an SDS for each chemical. You can use SDS Search to search and download any missing SDS. You may also want to download our infographic on how to read an SDS or make use of our instructor-led or online training on the Globally Harmonized System (GHS) and how to engage with SDSs. BACK TO START | NEXT STEP OF 12

What is an SDS?

Safety Data Sheets (SDSs) are summary documents that provide information about the hazards of a product and advice about safety precautions. SDSs are usually written by the manufacturer or supplier of the product. In some circumstances, an employer may be required to prepare an SDS (e.g., when the product is produced and used exclusively in that workplace).

SDSs provide more detailed hazard information about the product than the label. They are an important resource for workplaces and workers to help you learn more about the product(s) used. Use this information to identify the hazards of the products you use and to protect yourself from those hazards, including safe handling and emergency measures.

SDSs tell users what the hazards of the product are, how to use the product safely, what to expect if the recommendations are not followed, how to recognize symptoms of exposure, and what to do if emergencies occur.

Do I Need an SDS?

OSHA only requires safety data sheets (SDSs) for hazardous products or chemicals. GLT Products, along with other manufacturers are not required to provide SDSs for non-hazardous materials or products. OSHA has left it up to the producer whether or not they should provide SDSs for non-hazardous materials. Many organizations often supply SDSs for liability purposes, not for compliance. In fact, OSHA **does not encourage** manufacturers to maintain SDSs for non-hazardous products or chemicals.

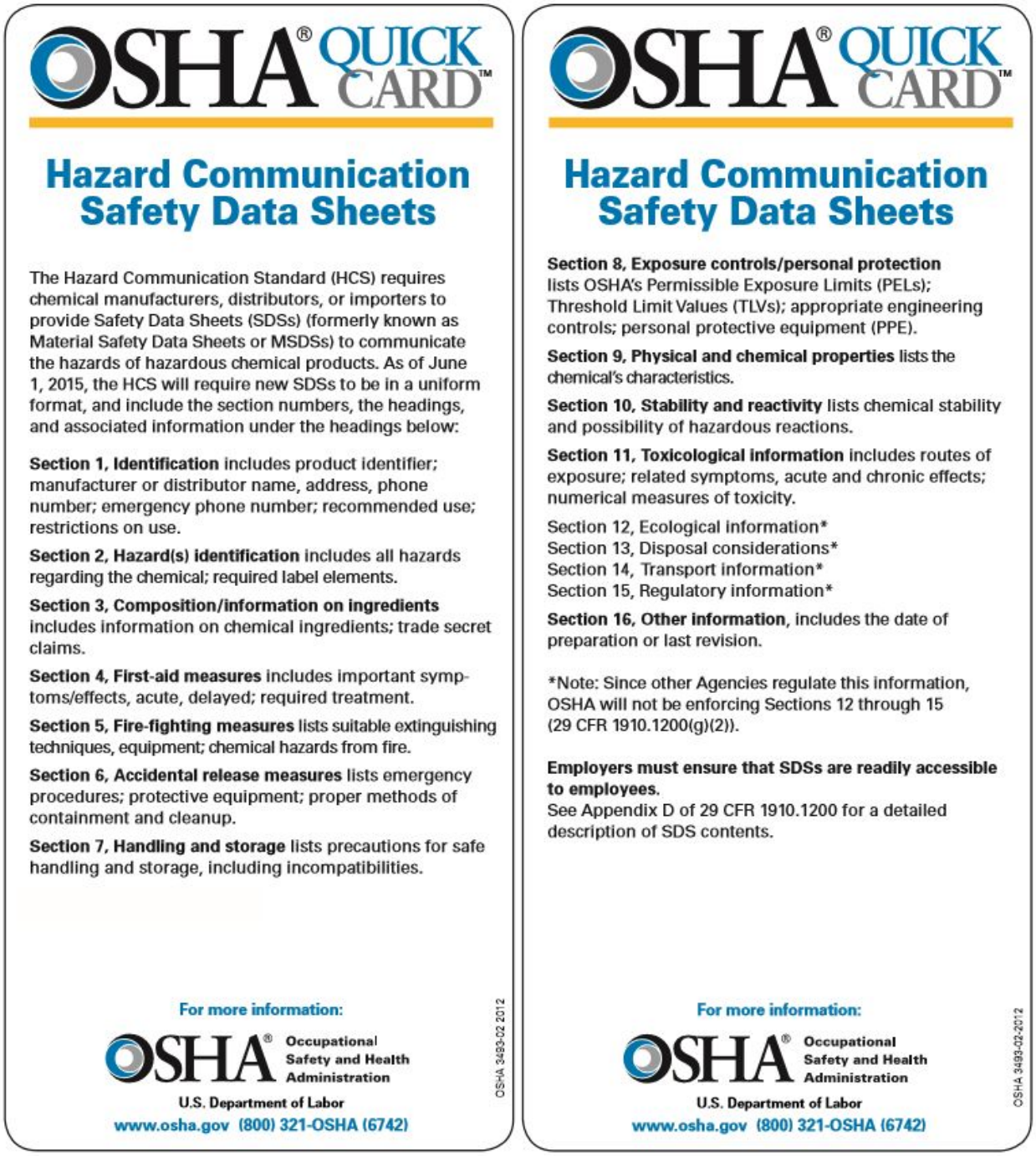
HCS 2012 defines a health hazard as:

"…a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200 – Health Hazard Criteria.

HCS 2012 defines a physical hazard as:

"…a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to §1910.1200 – Physical Hazard Criteria.

We encourage everyone to click here to view the full details of OSHA's rules on Hazard Communication Standards.



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Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

For more information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321-OSHA (6742)

OSHA 3493-02 2012

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Hazard Communication Safety Data Sheets

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*
Section 13, Disposal considerations*
Section 14, Transport information*
Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.
See Appendix D of 29 CFR 1910.1200 for a detailed description of SDS contents.

For more information:

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As of June 2015, the Hazard Communication Standard (HCS) now requires pictograms on labels to alert users of the chemical hazards to which they may be exposed to. Displayed below are pictograms of the symbols that represent a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.



The simple fact to keep in mind is that if it is a hazardous chemical or product, a safety data sheet **will be required**. If it is a manufactured product, the odds of an SDS existing may be slim.

[What information is on the SDS?]

What information is on the SDS?

The *Hazardous Products Regulations* (HPR) specifies the sections and content for the SDS. Schedule 1 within the HPR outlines the section number and heading that must be presented in the specified order, as follows:

SDS Section and Heading		Specific Information Elements
1	Identification	• Product identifier (e.g. Product name) • Other means of identification (e.g. product family, synonyms, etc.) • Recommended use • Restrictions on use • Canadian supplier identifier+ - Name, full address and phone number(s) • Emergency telephone number and any restrictions on the use of that number, if applicable++
2	Hazard identification	• Hazard classification (class, category or subcategory) of substance or mixture or a description of the identified hazard for Physical or Health Hazards Not Otherwise Classified • Label elements: - Symbol (image) or the name of the symbol (e.g., flame, skull and crossbones) - Signal word - Hazard statement(s) - Precautionary statement(s) • Other hazards which do not result in classification (e.g., molten metal hazard)

3	Composition/Information on ingredients	• When a hazardous product is a material or substance: - Chemical name - Common name and synonyms - Chemical Abstract Service (CAS) registry number and any unique identifiers - Chemical name of impurities, stabilizing solvents and/or additives* • For each material or substance in a mixture that is classified in a health hazard class**: - Chemical name - Common name and synonyms - CAS registry number and any unique identifiers - Concentration NOTE: Confidential business information rules can apply
4	First-aid measures	• First-aid measures by route of exposure: - Inhalation - Skin contact - Eye contact - Ingestion • Most important symptoms and effects (acute or delayed) • Immediate medical attention and special treatment, if necessary
5	Fire-fighting measures	• Suitable extinguishing media • Unsuitable extinguishing media • Specific hazards arising from the hazardous product (e.g., hazardous combustion products) • Special protective equipment and precautions for fire-fighters

6	Accidental release measures	• Personal precautions, protective equipment and emergency procedures • Methods and materials for containment and cleaning up
7	Handling and storage	• Precautions for safe handling • Conditions for safe storage (including incompatible materials)
8	Exposure controls/ Personal protection	• Control parameters, including occupational exposure guidelines or biological exposure limits and the source of those values • Appropriate engineering controls • Individual protection measures (e.g. personal protective equipment)

9	Physical and chemical properties	• Appearance (physical state, colour, etc.) • Odor • Odor threshold • pH • Melting point/Freezing point • Initial boiling point/boiling range • Flash point • Evaporation rate • Flammability (solid; gas) • Lower flammable/explosive limit • Upper flammable/explosive limit • Vapor pressure • Vapor density • Relative density • Solubility • Partition coefficient – n-octanol/water • Auto-ignition temperature • Decomposition temperature • Viscosity
10	Stability and reactivity	• Reactivity • Chemical stability • Possibility of hazardous reactions • Conditions to avoid (e.g., static discharge, shock, or vibration) • Incompatible materials • Hazardous decomposition products

11	Toxicological information	Concise but complete description of the various toxic health effects and the data used to identify those effects, including: • Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact) • Symptoms related to the physical, chemical and toxicological characteristics • Delayed and immediate effects, and chronic effects from short-term and long-term exposure • Numerical measures of toxicity, including acute toxicity estimates (ATEs)
12	Ecological information***	• Ecotoxicity • Persistence and degradability • Bioaccumulative potential • Mobility in soil • Other adverse effects
13	Disposal considerations***	Information on safe handling for disposal and methods of disposal, including any contaminated packaging
14	Transport information***	• UN number • UN proper shipping name • Transport hazard class(es) • Packing group • Environmental hazards • Transport in bulk, if applicable • Special precautions
15	Regulatory information***	Safety, health and environmental regulations specific to the product

16	Other information	Date of the latest revision of the SDS

[When is the SDS Updated?]

When is the SDS Updated?

SDSs are required to be accurate at the time of sale. An SDS will be required to be updated when the supplier becomes aware of any "significant new data". The definition of "significant new data" is:

New data regarding the hazard presented by a hazardous product that change its classification in a category or subcategory of a hazard class, or result in its classification in another hazard class, or change the ways to protect against the hazard presented by the hazardous product.

This definition means that an SDS must be updated when there is new information that changes how the hazardous product is classified, or when there are changes to the way you will handle or store or protect yourself from the hazards of the product.

SDSs will be required to be updated within 90 days of the supplier being aware of the new information. If you purchase a product within this 90 day time period, the supplier must inform you of the significant new data and the date on which it became available in writing.

[As an Employer, Do I Have Responsibilities for SDSs?]

As an Employer, Do I Have Responsibilities for SDSs?

Yes. Employers will be required to make sure that all hazardous products have an up-to-date SDS when it enters the workplace. The

SDSs must be readily available to the workers who are exposed to the hazardous product, and to the health and safety committee or representative.

Employers may computerize the SDS information as long as:

- all employees have access to and are trained on how to use the computer or device,
- the computers/devices are kept in working order, and
- the employer makes a hard copy of the SDS available to the employee or health and safety committee/representative upon request.

As mentioned, in some circumstances, an employer may be required to prepare an SDS (e.g., when the product is produced and used in the workplace).

[As a Worker, When Would I Use an SDS?]

As a Worker, When Would I Use an SDS?

Always be familiar with the hazards of a product **before** you start using it. You should look at an SDS, match the name of the product on the container to the one on the SDS, know the hazards, understand safe handling and storage instructions, as well as understand what to do in an emergency.

You can think of the SDS as having four main purposes. It provides information on:

a. **Identification**: for the product and supplier.
b. **Hazards:** physical (fire and reactivity) and health.
c. **Prevention:** steps you can take to work safely, reduce or prevent exposure, or in an emergency.
d. **Response**: appropriate responses in various situations (e.g., first-aid, fire, accidental release).

For most people who work with hazardous products, you should always:

- read the name of the chemical (Section 1),
- know the hazards (Section 2),
- understand safe handling and storage instructions (Section 7), and
- understand what to do in an emergency (Sections 4, 5 and 6).

A few things to know:

- Make sure that the product is being used in the way the manufacturer intended; otherwise the advice provided on the SDS and label may not apply, or the protective measures listed may not be adequate. Section 1 of the SDS should describe the typical use of the product and may indicate restrictions. Ask your supervisor or a health and safety professional for advice if the way you use the product does not match the SDS.
- Section 2 will summarize the hazards related to the product, precautions to take, and what to do in an emergency. Understand that the SDS covers information about the potential hazards, but may not be specific about the required safe work procedures needed for your workplace (e.g., the SDS may not specify what type of respirator must be used, just that a respirator is needed). More information can be found by asking your supervisor. These decisions may require the help of a safety professional or someone with chemical safety knowledge.

Additional Resources

Additional Resources

- OSHA's Hazardous Chemicals in Labs Fact Sheet (270 K PDF download).
- OSHA's page on chemical hazards and toxic substances including recognition, evaluation, controls, standards and more.
- OSHA Occupational Chemical Database. OSHA's premier one-stop

shop for occupational chemical information. It compiles information from several government agencies and organizations. Information available on the pages includes chemical identification and physical properties, exposure limits, sampling information, and additional resources.

- Occupational Health Guidelines for Chemical Hazards. U.S. Department of Health and Human Services (DHHS), National Institute for Occupational Safety and Health (NIOSH) Publication No. 81-123, (January 1981). Provides a table of contents of guidelines for many hazardous chemicals. The files provide technical chemical information, including chemical and physical properties, health effects, exposure limits, and recommendations for medical monitoring, personal protective equipment (PPE), and control procedures.
- Where to find Safety Data Sheets on the Internet. Interactive Learning Paradigms Incorporated (ILPI). Provides links to SDS available on the Internet.

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