

Before you begin

Familiarize yourself with the terms used in a safety data sheet (SDS) and be aware that a SDS is needed for every hazardous chemical on-site. Provide a handout of a SDS for a commonly used product for employees to look over during this safety talk.



Introduction

One of the biggest changes of the latest revision of the hazard communication standard is the revamp of what was formerly known as material safety data sheets (MSDS). The MSDS is now known simply as SDS. Your organization must have a SDS for each hazardous chemical or product on-site and the SDSs must be available for employees to view. The SDS contains 16 standardized sections that contain useful information about a hazardous chemical or product. This safety talk will review these sections so that workers can easily find information on hazardous materials they encounter on the job.

Definitions

Some key terms to know before diving into this talk are:

Material safety data sheet (MSDS) –This is the former version of the SDS. Their format varied between manufacturers and were often devoid of important information.

Safety data sheet (SDS) –These are the new and improved version of the MSDS. They contain 16 standardized sections. All SDSs will follow the same format regardless of manufacturer.

Hazardous chemical/product – Any chemical classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazards not otherwise classified.

Discussion

Go over each section of the SDS listed below as part of this safety talk.

Each section of the SDS contains important information.

Section 1 is identification. This includes the product identifier, manufacturer or distributor name, address, phone number, emergency phone number, and the recommended use and restrictions on use. You would use this section to make sure you're looking at the correct SDS as well as to contact the manufacturer or distributor with a question or in case of an emergency.

Section 2 is hazard identification. This includes all hazards regarding the chemical. Use this section to understand the hazards of the product and to perform a quick risk assessment. For example, if you are comparing two similar products, and one of the products causes cancer, it may make sense to use the other product.

Section 3 is composition/information on ingredients. This section contains information about what chemicals are in the product and how much of those chemicals are in it. This section is useful for identifying which specific chemicals may require protective measures. Sometimes you'll see the percentage of a chemical in a product is withheld due to it being a trade secret of the manufacturer. The manufacturer may need to be contacted directly by a health care or safety professional to get this information.

Section 4 is first-aid measures. It includes information about the symptoms of exposure and what to do if someone is overexposed.

Section 5 is fire-fighting measures. It contains information on suitable extinguishing techniques and equipment needed. This section is important because it allows the user of the chemical to know what to do if there is a fire. Some chemical fires, such as those brought on by combustible metals, require a special fire extinguisher.

Section 6 is accidental release measures. This section contains information on what to do if the chemical is released, including necessary protective equipment, and proper methods of containment and cleanup.

Section 7 is handling and storage. It lists precautions for safe handling and storage as well as information on incompatible chemicals. This section is important to read so that a chemical isn't accidentally stored next to something that it may react with. In the event of a shelf collapsing or an earthquake, incompatible chemicals that accidentally mix can have dangerous results. Sometimes a chemical is even sensitive to light and must be stored in a dark room or container.

Section 8 is exposure controls and personal protection. This section lists ingredients in the product that may have a specific airborne exposure limit. It is important not to expose employees at or above these limits to minimize potential adverse health effects. Additionally, this section details appropriate personal protective equipment when using the product(s).

Section 9 is physical and chemical characteristics. This section contains technical information about the chemical or product such as boiling point and melting point. Safety professionals or engineers use this information when using the chemical or product as part of a process.

Section 10 is stability and reactivity. This section provides information on the possibility of hazardous reactions. Some of the information overlaps with Section 7 and informs users to keep the chemical or product away from incompatible materials.

Section 11 is toxicology information. It contains information about the routes of exposure and any available animal testing data that is available. This section is useful because in the absence of exposure limits that are normally provided in Section 8, toxicology information can be used to create an in-house exposure limit.

Sections 12 through 15 are ecological information, disposal considerations, transport information, and regulatory information, respectively. While they are important, the Occupational Safety and Health Administration (OSHA) does not regulate them.

Section 16 is other information. This section contains miscellaneous information such as the date of the SDS preparation or last revision. It is best practice to keep the most up-to-date version of an SDS as new information can become available (e.g., the revision of an exposure limit).

Conclusion

In conclusion, the SDS is an important resource to have when using a chemical or product. An SDS is required for every hazardous chemical or product on-site and must be accessible for employees to view. SDSs may be kept in binders or online, so long as employees have easy access to them.

Group activity

Provide employees an SDS and ask them specific questions about that chemical or product. Examples: What is the boiling point? What is the best extinguishing media?

Resources

1910.1200 App D: Toxic and Hazardous Substances – Safety Data Sheets (Mandatory)

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200AppD>

OSHA Quick Card: Hazard Communication Safety Data Sheets

<https://www.osha.gov/Publications/OSHA3493QuickCardSafetyDataSheet.pdf>

OSHA Brief: Hazard Communication Standard: Safety Data Sheets

<https://www.osha.gov/Publications/OSHA3514.pdf>