TOOLBOX TALK

Hazardous Chemicals

Overview

OSHA requires that workers who may be exposed to hazardous chemicals under normal operating conditions or foreseeable emergencies be provided with information on hazardous chemicals present in their work areas. One important source for this information is the safety data sheet (SDS). The SDS is the primary tool for finding information about the chemicals in the workplace.

However, material safety data sheets (MSDSs) were required before OSHA issued the SDS requirements in 2012. In fact, you may still see MSDSs in use if new chemical inventory has not been purchased. Once new chemical inventory is purchased for a hazardous chemical, an SDS for that chemical should be received and used. Whether your employer provides SDSs or MSDSs, they must be in English and readily accessible to you in paper or electronic format. If you travel between worksites, the sheets may be kept at a central location.

Information in the MSDS versus SDS

The MSDS and SDS are similar in purpose and content, but the MSDS has fewer required elements, and those elements could be provided in any order. The SDS, on the other hand, follows a rigid 16-section format, and the content may be more detailed than what's in an MSDS.

Sections 12 to 15 of the SDS are optional and include: ecological information, disposal considerations, transport information, and regulatory information, respectively.

An awareness of the hazard information on the data sheet can mean the difference between safely working with chemicals, and a chemical tragedy.

Compare the content of the MSDS with the SDS below:

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MSDS information:	SDS information:
Chemical identity Name, address, and telephone number of chemical manufacturer, importer, or other responsible party	Identification: Product identifier used on the label and other means of identification Recommended use and restrictions on use Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party Emergency phone number.
Physical and health hazards	Hazard(s) identification
Information on ingredients	Composition/Information on ingredients
First aid measures	First-aid measures
Emergency measures	Fire-fighting measures
	Accidental release measures
Precautions for safe handling	Handling and storage
Exposure limits Control measures	Exposure controls/Personal protection
Physical and chemical characteristics	Physical and chemical properties
	Stability and reactivity

Primary route(s) of entry Whether the chemical is a carcinogen	Toxicological information
Date of preparation	Other information, including date of preparation or last revision

OSHA requires employees who may be exposed to hazardous chemicals under normal operating conditions or foreseeable emergencies be provided with thorough and accurate information on each hazardous chemical present in the work areas.

How can chemicals hurt me?

Many chemicals pose health problems to humans. OSHA defines "health hazards" as those chemicals which are classified as a health hazard according to one of the GHS criteria:

- 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)
- Aspiration hazard

Hazards are classified by hazard class and category, and this information must be included on the container label and the safety data sheet (SDS).

You can come into contact with chemicals in three ways:

1. If they come into contact with your bare skin
2. If they are swallowed, if you eat or drink contaminated food or drink, or if you eat with contaminated fingers
3. By breathing in the dust or vapors

What must I do?

You must:

- Attend chemical hazard training and ask questions if you don't understand that training.
- Understand how to read hazardous chemical container labels.
- Know where to find SDSs and understand what information they provide you.
- Follow all workplace chemical safety rules.