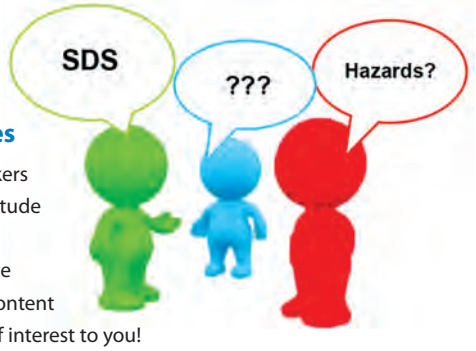
SAFETY DATA SHEETS – SIMPLIFYING ITS CONTENT FOR WORKERS



SDS user challenges

Are your company's workers challenged by the magnitude and complexity of the information in Safety Date Sheet (SDS)? If YES, the content of this article would be of interest to you!

What is a Safety Data Sheet?

SDSs, or historically called MSDSs, are technical documents that provide detailed and comprehensive information on chemicals (including mixtures) that are classified as "hazardous".

The information supplied in the SDS covers the chemical's identity as well as any hazardous ingredients of the chemical; its properties; the potential physical, health, and environmental health hazards; protective measures; emergency procedures; and safety precautions for handling, storing, and transporting the chemical.

Important hazard information to note from the SDS includes, hazard classification, the routes of exposure, advice or warnings for at-risk workers, instructions on storage, physicochemical properties, use situations that may generate additional hazards as well as potential environmental hazards.

Purpose of the SDS

The SDS is a **hazard communication tool** and is intended to **supplement** the hazard information provided **on the label** of the chemical.

As an additional source of information, the SDS goes further than the classification of the chemical and the labelling to communicate comprehensive information to the employer or user about the chemical's hazards, including health and transport related hazards, and advice on the safe use of the chemical in the workplace.

The information in the SDS will enable the employer/user to implement the necessary measures for protecting human health and safety in the workplace and for protecting the environment from undesired releases that could result in pollution.

The information in the SDS should be the most important starting point for taskbased risk assessment in the workplace.

Who does the SDS address?

The SDS basically address **employers** and the **workplace**.

The employer has the responsibility to evaluate the information obtained from the SDS and to provide the information to the workers in an appropriate manner. This is where a company has to develop a system of educating employees on the critical hazard information in the SDS including instruction on its content and the significance of the information in this document.

Responsibilities of employers

Employers are required to ensure that the current SDS is readily accessible to workers who use the hazardous chemical at the workplace and to emergency service workers, or anyone else who is likely to be exposed to the hazardous chemical.

This is normally done by keeping copies of the SDS in a location near the work area where the chemical is used. Employers can for example place copies of the SDSs in a file or have it electronically available on computers. Best practice is to ensure that employees have immediate access to the information without leaving their work area when needed. A back-up should be available for rapid access to the SDS in the case of a power outage or other emergencies.

Workers likely to be exposed to the hazardous chemical must know where to find the SDSs.

Can workers effectively use the SDS?

Although many employers make the SDS available as described above, **there is no guarantee that workers will successfully use the information in the document when required to do so.** Reasons for this could include the literacy level of the employees, language barriers (difficult for workers with limited English proficiency to understand), complexity and length of the document, inaccurate or missing information in the SDS leaving workers uninformed and at risk, as well as inappropriate training or rather lack of training on how to use such documents.

An important question to think about refers to emergencies – in case of such an event, will there be adequate time for workers to find the SDS of the chemical involved, page to the appropriate section for information, read the required information and then execute the correct actions?

Alternative hazard communication strategies for understanding SDS content

Employers should consider alternative strategies for ensuring that workers have access to critical safety and emergency information supplied in the SDS.

Ideally, the information supplied in the SDS should be "unlocked" for workers.

A very successful solution is to simplify, sift and condense the SDS content for workers by providing summaries that are developed from the supplier's SDS. Such summaries can be displayed in the work areas in the form of simple and understandable Hazardous Chemical Workplace Specific Procedures (HCWSP).

Layout and content of Hazardous Chemical Workplace Specific Procedures

The layout of the procedure should be done on one page (e.g. A4) that has been laminated and either displayed in the work area, or kept on file in close proximity to where handling activities with the hazardous chemical takes place (storage, handling, transportation, etc.).

The format should ensure easy reading by using an appropriate font size and a wellstructured layout. It is recommended that a brightly coloured border (e.g. orange or red) is used on the document and that the information supplied is supplemented by pictures and pictograms e.g. the required hazard pictograms specified by the hazardous substances' GHS (Globally Harmonised System of Classification and Labelling of Chemicals) classification.

Ideally there should be seven sections in the procedure that supply the necessary information in the procedure.

Content of the seven sections

It is important that the content of the procedure is specifically aligned with the requirements of the activity where the hazardous chemical is used or handled. Typically the seven sections should contain the following information

Section 1 - the company logo, unique procedure number required for document control, date and version number, next revision date, department/ plant/area where the procedure is applicable and the specific activity applicable to the procedure:

Company XYZ **WORKPLACE SPECIFIC PROCEDURE**

DATE: 23 August 2018 VERSION: 1

WSP-BP-014 **DEPARTMENT: Blending Plant**

Next Revision Date: 23 August 2021 **ACTIVITY: Hopper Filling**

Section 2 - the specific substance and the chemical's name as well as the appropriate Signal Word.

Section 3 - the hazard pictograms and the GHS Hazard Statements of the chemical. **This is the most important hazard communication section** and should be of appropriate font size to ensure easy reading:

HAZARDS TO PEOPLE AND THE ENVIRONMENT

H315: Causes skin irritation
H335: May cause respiratory irritation
H318: Causes serious eye damage

Sections 4 and 5 - safety measures, rules of behaviour (Personal Protective Equipment required) and specific behaviours required in case of emergencies e.g. spills or releases. Pictures of the actual PPE required for the activity, can be included in Section 4.

Section 6 and 7 - first aid requirements including skin contact, inhalation, ingestion and eye contact and the correct waste disposal. Reference to company specific procedures can be included in these sections.

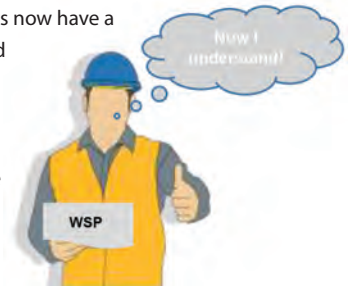
Training

Appropriate formal training of the workers on the content of the Workplace Specific Procedures must be done by the employer. Training should be conducted by a suitably qualified and experienced person annually. The training should be documented and the training records kept. Training records could become important documents in cases of incidents or accidents.

Management of hazardous chemicals Workplace Specific Procedures

A list of the chemicals, procedure numbers and revision dates should be kept and maintained. The procedures should be reviewed at least every second year. More regular review is required when changes in the work methods (activities) take place or when the employer is informed by the supplier of changes to the SDS.

Benefits of chemical Workplace Specific Procedures



Employers can be confident that workers now have a useful document that is easy to read and understand – specifically in emergency situations. Procedures that are readily available or displayed in the work area assists workers to better understand the hazards associated with the specific chemical, to have no doubt about the PPE that they are required to wear for a specific activity, as well as the required actions to be taken in case of an emergency.

Training on the procedural requirements is more focussed, less time consuming and complicated that that training on the complete content of the SDS.

Developing workplace Specific Procedures for Hazardous Chemicals

Companies that work with or handle hazardous chemicals, should assess the ability of their workforce to use the information in the SDS effectively. If workers are not adequately skilled and cannot use the SDSs successfully, workplace Specific Procedures should be considered as an excellent alternative hazard communication strategy.

Although the development of the Workplace Specific Procedures initially takes time and effort, once developed, the maintenance of the documents are easy. Information included in these documents do not require frequent review.

Workers have been found to be more comfortable with referring to and using such documents rather than searching and finding information in the SDS.

Lindeque SHEQ Consulting Services

Assistance with the development, maintenance and training on Hazardous Chemicals Workplace Specific Procedures can be provided by Lindeque SHEQ Consulting Services.

This consultancy specialises in the management of hazardous chemicals, training of the workforce on the hazards of chemicals and in the development of safety, occupational health, and environmental management systems.

Information about the author

Louise Lindeque is a chemist of profession and has an MSc in Organometallic Chemistry. With 15 years managerial experience in EHS management within the chemical and related industries, she has a sound knowledge of the requirements of and implementation of Responsible Care, the South African EHS legal requirements, ISO 14001 and ISO 45001. She has previously served as the chairperson for the SABS national committee responsible for standards for dangerous goods including hazardous chemical substances. She has a passion for transferring knowledge regarding the hazards of chemicals, therefore ensuring that workers are empowered to protect themselves in the workplace.

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