

Information Sheet: Understanding of Safety Data Sheets

Purpose

The purpose of this information sheet is to guide workers and supervisors in the general understanding of Safety Data Sheets (SDS formally known as MSDS) and assist you to meet the requirements of the [Chemical Safety Management](#) handbook chapter.

If you are pregnant or considering conception please also refer to the [Reproductive toxicity information sheet](#).

Q1 What is a Safety Data Sheet (SDS)?

A safety data sheet (SDS), previously called a Material Safety Data Sheet (MSDS), is a document that provides critical information about hazardous chemicals. For example, an SDS includes information on:

- the chemical's identity and ingredients
- health and physical hazards
- safe handling and storage procedures
- emergency procedures, and
- disposal considerations.

An SDS is an important tool for assessing and managing the risks associated with the use of hazardous chemicals in workplaces.

Q2 When do I need to use a Safety Data Sheet (SDS)?

Safety data sheets are required for at all steps of the hazard management process, including:

- Prior to purchasing/or using a chemical to identify the hazards, decide if there is a safer option and/or identify the nature of the risks to health and safety;
- Completing a risk assessment;
- Determining the appropriate control measures to manage the hazards and minimise the risk of exposure (including what to do if there is a spill and if any specific first aid procedures are to be followed);
- Deciding where and how the chemical can be safely stored and at what quantity;
- Waste management

For further information, refer to the [Hazard management](#) and [Chemical safety management](#) handbook chapters.

Q3 What hazard information is included in a Safety Data Sheet (SDS)?

Identification - The SDS includes the product identifier of the hazardous chemical, exactly as found on the manufacturer's label. A SDS can be generic to cover several minor variants of a hazardous chemical. All product identifiers must be listed on a SDS along with any other common names or synonyms. The recommended or intended use of the chemical should be provided in this section as should the details of the manufacturer.

Hazard identification – If a chemical is classified in accordance with the Globally Harmonised System (GHS) the appropriate hazard and category should be indicated (e.g. flammable liquid, category 1). The SDS will also list signal words, hazard statements and precautionary statements. Pictograms may or may not be present on in this section of the SDS.

Composition and information on ingredients – this section will list the composition of substances of the chemical or mixture.

First aid measures – this includes a description of first aid measures including eye and skin contact, inhalation and ingestion. It will also indicate if any immediate medical attention and special treatment is needed.

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Q3 What hazard information is included contained in a Safety Data Sheet (SDS)? Continued

Firefighting measures – includes extinguishing media (e.g. foam, dry powder, etc.), special hazards arising from the chemical including fire incompatibility and advice for firefighters (i.e. firefighting, fire/explosion hazard and HAZCHEM reference)

Accidental release measures – covering materials and methods for containment and cleaning up (i.e. minor and major spills).

Handling and storage – details on precautions for safe handling and conditions for safe storage, including incompatibilities. It will also cover which containers are suitable for storing the chemical.

Exposure controls/personal protection – this section outlines the exposure route and how this may be controlled via engineering, personal protective equipment and any other necessary protection methods. It will go into detail of which gloves and respiratory protection to use to handle the chemical safely.

Physical and chemical properties – including basic physical and chemical properties such as appearance, physical state, odour, pH, melting point and flammability.

Stability and reactivity – this section outlines the reactivity and possibility of hazardous reactions due to incompatibility.

Toxicological information – this is an in-depth section of a SDS covering toxicological effects via different exposure routes, indicating if a chemical has any irritation, mutagenic, carcinogenic or reproductive consequence.

Ecological information – details of toxicity to wildlife, persistence/degradability, bio-accumulative potential and mobility in soil are located here.

Disposal considerations – the waste treatment methods, including product and packaging disposal is outlined here.

Transportation information – labelling requirements for transporting hazardous chemicals (Dangerous Goods Code) via land and air can be found in this section.

Regulatory information – safety, health and environmental regulations/legislation specific for the substance or mixture for various countries.

Other information – including when the SDS was revised and a list of definitions and abbreviations.

Q4 If I am a supervisor, what information do I need to provide to workers, on Safety Data Sheets (SDS) and do I need to keep a record?

As a supervisor, you need to provide the appropriate level of information on how to access, read and use the SDS.

This is best provided during a worker's local induction to a laboratory/workshop/area.

If the worker is required to work with or access an area containing hazardous chemicals, the worker must be provided with information regarding the types and nature of the hazardous chemicals that are used or stored in the area, the risks associated with those types of chemicals and any controls that they need to implement or be aware of to safely work in the area.

A record is to be kept on file, of the provision of this information to any worker (including any students) and the records need to be retrievable on request in accordance with the [Provision of HSW information, instruction and training](#) handbook chapter.

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Q5 Do I need to have printed copies of Safety Data Sheets or are electronic versions suitable?

The University is required under the WHS legislation to ensure that the current safety data sheet for a hazardous chemical is readily accessible to:

- a worker who is involved in using, handling or storing the hazardous chemical;
- an emergency service worker, or anyone else, who is likely to be exposed to the hazardous chemical.

The Supervisor/Person in control of the activity/area is to determine how ready access is to be achieved. This decision may depend on the nature and location of the chemical(s) used, the level of residual risk following the risk assessment and if all users have ready access to electronic versions when needed.

If printed copies of SDSs are available in your laboratory/workshop/area of work, for immediate reference, then the copy must be less than 5 years old from publish date (not printing date). (Noting that keeping printed copies up to date can be an administrative task that is often overlooked. There should be a system in place (e.g. a reminder on the [Schedule of Programmable Events](#)) to check they are in date. If access to electronic versions of the SDSs is the system you use (i.e. [Chemwatch](#)), then this system must be accessible to all users of the laboratory/chemicals, in their area of work, at all times.

Q6 Where do I obtain a current Safety Data Sheet (SDS)?

In accordance with the WHS legislation, an SDS must be supplied to the workplace by the manufacturer or supplier:

- when the hazardous chemical is first supplied (i.e. in the first five years); and
- the first time a hazardous chemical is supplied after an SDS has been amended.

An SDS can also be accessed via [Chemwatch](#).

Chemwatch is a database used by the University which contains manufacturer and Chemwatch developed Safety Data Sheets (SDSs).

If the chemical you are using does not have an SDS in Chemwatch then you must obtain a copy (less than 5 years of age) from the manufacturer. An electronic copy of the SDS should be sent to a member of the [HSW Team](#) for uploading to Chemwatch.

Q7 Can an SDS prepared overseas be used?

An SDS prepared by an overseas manufacturer or supplier is acceptable only if it is prepared in accordance with the WHS Regulations and prepared specifically for use in Australia. If the overseas manufacturer's SDS does not comply with the requirements of the WHS Regulations, the importer will be responsible for preparing an SDS that does comply. Section 2.3 of the Code of Practice "[Preparation of safety data sheets for hazardous chemicals](#)" provides further information.

Q8 Where do I obtain further information on Safety Data Sheets (SDS)?

- [SafeWork SA – safety data sheets](#)
- Code of Practice "[Preparation of safety data sheets for hazardous chemicals](#)" June 2020 (SA)
- [HSW staff intranet - Chemwatch](#)
- [SafeWork Australia – Globally harmonised system of classification and labelling of chemicals information sheet](#)
- If you require further information, please contact your local [HSW Team](#).

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