

Safety Data Sheet Guide

The daily management of Safety Data Sheets (SDS) is a heavy and resource-intensive task within any company. It is a very in-depth technical subject that requires constant attention to changes in current legislation and corresponding adjustments to company processes.

This document aims to summarise what a SDS is and add some suggestions and precautions to be taken in its daily management.

Introduction to Safety Data Sheets (SDS)

Safety data sheet management is the backbone of chemical product safety, and its importance is vital. The safety data sheet is the main source of information for employers and workers, outlining the dangers of chemical products and the risks they pose to people and the environment, as well as the measures to control these risks. Safety data sheets are essential sources of information for correctly managing health and safety in the workplace.

However, the SDS themselves are not enough. The SDS itself does not take into account your specific location, task or how you use the product. It is therefore important that you create a chemical risk assessment that takes these additional requirements into account. Safety data sheets are essential documents in standard format that are used to inform all workers and safety personnel about how chemical substances and mixtures of substances can be handled, used, stored, disposed of and any emergency measures required in the event of an accident or incident.

Safety data sheets (SDS), sometimes referred to by the old name of material safety data sheets (MSDS), have had many formats over the years. Since the introduction of the GHS Regulations, a new structured, unified and standardised approach to ensuring the safe use of chemicals has been introduced globally. Although not all countries in the world have yet adopted the GHS Regulations, since 1 June 2015 in Europe, all new SDSs compiled must conform to the new SDS format.

Safety Data Sheets are divided into 16 sections and additional sub-sections. In this guide, we will highlight the main elements of each section and explore their importance. It is important that all employees have read the SDS for all the chemicals they are working with and have the knowledge to understand the SDS. Normally, manufacturers/suppliers will provide the SDS with the product, either electronically or in hard copy. If they don't, it's up to the company/user of the chemical to contact the manufacturer and request a safety data sheet or find a reliable supplier who will provide an SDS.

Before bringing the product on site, review the hazards and determine whether it is suitable, i.e. don't bring a product on site if there are safer alternatives. It's not enough to have a safety data sheet; you must have the relevant safety data sheet in accordance with your geographical region.

According to European legislation, a compliant SDS must contain the following:

- Sixteen sections
- Classification and labelling according to GHS/CLP
- Language of the market where the product is being marketed/where it will be used

Legislation on Safety Data Sheets (SDS)

Safety Data Sheets must be drawn up in accordance with the REACH Regulation (Regulation (EC) No 1907/2006) and the CLP Regulations (Regulation (EC) No 1272/2008). These regulations set out the requirements regarding the classification of the product and the format of the SDS.

Article 31 of REACH requires a chemical supplier (manufacturer, importer, downstream user, distributor) to provide their customer with a compliant SDS if the chemical they supply is hazardous. In some cases, SDSs must also be provided for non-hazardous chemicals that fulfil specific criteria as defined in the regulations.

Annex II of REACH Regulation (EC) No 1907/2006 has always defined the requirements for drawing up an SDS since its introduction in 2007. In 2015, Annex II was revised by Regulation (EC) No 2015/830 to take into account changes in the CLP Regulation and the 5th edition of the United Nations Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

According to the REACH regulations in Europe, safety data sheets must be updated or reissued in the following cases:

- Once new product information is added that could change the chemical risk or hazard, such as a new classification. In this case, an updated SDS must be issued.
- If an ECHA authorisation has been granted or refused.
- Or if a restriction has been imposed by ECHA.

Understanding the SDS (Safety Data Sheet)

Most companies that purchase/use chemical products understand the legal requirements for obtaining and maintaining a safety data sheet. However, many companies do not understand what they should do with the information provided in the SDS they obtain. All the data provided is created with the aim of guaranteeing the protection of all users of chemical products.

The safety data sheet, according to the REACH guidelines, must contain the following 16 headings. The most important sections are Sections 1, 2, 3, 4, 7, 8 and 15:

Section 1: Identification of the substance/mixture and the company/undertaking

This section includes the supplier's contact details (product name, company name, address, telephone number in case of emergency)

Section 2: hazard identification

It provides an overview of the physical and health risks associated with the use of the chemical. Section 2 of your product SDS aims to provide an overview of the specific hazards associated with your chemical and the information required on the product label.

The hazard classification is usually the first piece of information you will find in Section 2. This information is essential when assessing the risk to workers and the environment

The European CLP Regulations subdivide this section into additional subsections:

- The product's hazard classification
- Warning words
- Pictograms
- Hazard statement
- Precautionary statement
- Description of any hazards not otherwise classified
- Additional requirements as set out in specific legislation.

Section 3: composition/information on components

This section includes the formula, molecular weight, concentration and CAS number.

Section 4: first aid measures

Indicates what to do in the event of a dangerous situation.

Section 5: fire-fighting measures

If a chemical product is at risk of fire, this section provides information on the personal protective equipment required and the appropriate extinguishing method.

Section 6: measures in the event of accidental leakage

It provides information on the appropriate response to spills, leaks or releases, including containment and clean-up practices to prevent or minimise exposure to people, property or the environment.

Section 7: handling and storage

Here you will find special tips on storage and use to prevent accidents and improve safety.

Section 8: exposure controls/personal protection

This section provides information on personal protective equipment, such as goggles and gloves.

Section 9: physicochemical properties

This section describes the physical and chemical properties associated with the substance or mixture.

Section 10: stability and reactivity

It describes the dangerous reactions that can occur if the chemical is used under certain conditions. It is subdivided into 3 areas: reactivity, chemical stability and others.

Section 11: toxicological information

A detailed description of how the material can cause harm or injury, including routes of exposure, related symptoms, acute and chronic effects and numerical measures of toxicity.

Section 12: ecological information

Describes the potential impact the chemical may have if released into the environment.

Section 13: disposal considerations

It describes how the chemical should be disposed of and handled, including the recycling of containers exposed to the chemical. Reviewing Section 8 is important before carrying out any disposal procedures.

Section 14: transport information

If you are transporting the chemicals by road, air, rail or sea, you need to assess the transport details.

Section 15: regulatory information

Identifies EU/national chemical legislation in relation to the specific chemical.

Section 16: other information

This section provides any other relevant information about the chemical, such as training advice, full text of hazard statements, preparation or revisions of SDSs and other information.

Chemical Classification

How do we know which chemicals are dangerous and which are not? This information is obtained from the classification system. As you may know, in 2015 the classification system for chemical products changed from the old CPL/CHIP to the new CLP Regulation, which is part of the Globally Harmonised System of Classification. As the name implies, the aim is to have a unified system used all over the world to provide a common understanding. The old orange/yellow square symbols have been replaced by diamond pictograms with a red border.

SDS Checklist

It's always important to use a checklist for your team to check that all the relevant points in your SDS are being complied with:

- ✓ Check that the language and legislation are correct for your market. Is it clear and precise?
- ✓ Check that it is dated and that the revision date and details of revisions are provided.
- ✓ You must archive the documents (new versions and archived versions of the SDS). This can be on paper or in digital format.
- ✓ The SDS should be reviewed, analysed and the key information identified. The most important sections to be prioritised are Section 1, 2, 3, 8, 9, 14. The information in the SDS will help in the chemical risk assessment measures, in deciding what PPE to have on site and in the emergency policy related to chemical safety.
- ✓ Ensure that the details on the chemical's label are exactly as presented in sections 1 and 2 of the SDS.
- ✓ It is the responsibility of the chemical user/company to contact the supplier and request an updated version if they are not satisfied with the information provided.
- ✓ The SDS should be the basis for information to prepare chemical risk assessments, inform employees about the hazards of the chemical, outline the protective measures to be taken when using it and the measures to be taken in the event of an emergency.
- ✓ All employees should be able to access safety data sheets and know how to understand them in order to make safe decisions.
- ✓ It is also good practice to regularly check SDSs to ensure that the most accurate and up-to-date version is easily accessible.