

Regulations Matter When Buying Cleaning Chemicals

Safety data sheets provide information on chemical products that help users of those chemicals to make a risk assessment. They describe the hazards the chemical presents, and give information on handling, storage and emergency measures in case of accident.

Health & Safety Executive

A manufacturer's safety data sheet (SDS) is not a risk assessment. The information contained in the SDS should be used by the user to complete their own assessments.

The last major change to SDS format was introduced in January 2022 and all SDSs must now be updated to the new requirements (Regulation (EU) 2020/878). The revised safety data sheet must contain the date of the most recent update. The issue date of the safety data sheet must be indicated on the first page.

In the UK and EU there is no 'expiry date' or 'shelf life' for an SDS. Chemical suppliers are expected to periodically review, revise, and update the safety data sheets they provide for the products they sell. Changes are made, as necessary, as new hazard information is found, new information about protective measures is ascertained, or changes are made to product formulations. Once they have updated their SDS, manufacturers are not required to automatically send the updated SDS to their customers unless the changes significantly affect the product's safety and consequently affect the Risk Assessment.

www.hse.gov.uk/coshh/basics/datasheets.htm

The SDS, Section by Section

An SDS comprises 16 Sections

Section 1: Identification of substance / mixture and the company

A brief description of the product is in this section. This includes the recommended use, if relevant, and any restrictions of use.

There is no requirement to have the Biocidal Product Regulation (BPR) or Unique Formula Identifier (UFI) numbers on the SDS. However, these numbers are required on the product label, so it is good practice to include them on the SDS.

The contact details for the manufacturer/supplier, which include the address and emergency contact details, are required.

Extended guidance on this can be found in the international standard ISO 14044:2006 as amended.

Section 2: Hazard Information

This section includes where relevant the hazard pictograms (red diamonds), hazard (H) statements (e.g. causes severe skin burns and eye damage), precautionary (P)

statements (e.g. keep out of reach of children) and supplementary information (e.g. contact with acids liberates toxic gas).

Information on any substances classified as PBT (Persistent, Bioaccumulative and Toxic) and vPvB (Very Persistent and Very Bioaccumulative) is in this section.

If this section contains square orange hazard symbols and refers to R&S phrases then this indicates the SDS is in a very old CHIP format and an up to date SDS format should be requested.

Section 3: Composition

All hazardous ingredients of over 0.2% by volume or with an exposure limit are listed in this section.

If a product is classified in section 2, then its classified ingredients will be listed in this section. Note: hazardous ingredients listed in section 3 does not automatically mean the product is classified as hazardous. Product Not Classified may have ingredients listed in this section, but they will be at levels below classification criteria.

Do not make mistake of taking section 3 as a specification. If it says 5-10% this does not mean the level can vary from 5 to 10%, but that the actual level falls into the range 5-10%. Exact percentage levels are rarely quoted by companies to prevent their formulations being copied by competitors.

The purity and, if relevant, the concentration and solvent used to make the solution will be listed for single ingredient products.

Section 4: First Aid

This section is required to indicate the basic first aid measures required according to the method of contact, i.e. inhalation, ingestion, skin contact or eye contact.

Symptoms and effects need to be indicated, including those that may have a delayed onset.

Guidance for the medical professional treating the individual is also required in this section.

Section 5: Firefighting

This section must indicate the method required for extinguishing the fire and special hazards arising from the substance or mixture (e.g. thermal decomposition or combustion products may include the following substances: irritating gases or vapours).

This section must also include advice for fighters, indicating the equipment or protective clothing they require.

Section 6: Accidental Release

This section must include information on the personal precautions, protective equipment and emergency procedures required in the event of an accidental release. It must also include information on the environmental precautions and the methods and materials required for containment and the cleaning up of the release.

Section 7: Handling and storage

The information required for the safe handling and storage of the substance is included in this section. It will indicate required precautions (e.g. avoid contact with eyes) and conditions (e.g. keep only in the original container in a cool, well-ventilated place).

Section 8: Exposure

The exposure limits provide the supervisor carrying out a Control of Substances Hazardous to Health Regulations (COSHH) assessment with essential information. If they think the user is at risk of exceeding the limits they can take appropriate action.

The personal protective equipment (PPE), which should be used when handling the undilute product is also included in this section. This maybe, for example, eye protection, protective gloves and / or appropriate clothing to prevent skin contact.

Section 9: Physical and chemical properties

This section outlines the physical and chemical properties of the product in the state it was transported and in normal environmental conditions (room temperature and standard pressure). This includes the appearance (e.g. viscous liquid), colour (e.g. blue), odour (e.g. floral), pH, melting point, boiling point and solubility (e.g. soluble in water).

Section 10: Stability and reactivity

This section contains information on the substance under normal conditions. This includes the reactivity of the product and the consequences of the reaction (e.g. reacts with alkalis and generates heat). The chemical stability of the product is indicated, and the conditions and materials that might result in a hazardous reaction. Any hazardous decomposition products are also indicated in this section. Information on material incompatible for storage is also included.

Section 11: Toxicity

Where relevant Acute Toxicity Estimate (ATE), i.e. the toxicity of the substance by a specific exposure route, will be listed in this section. The larger the number indicated the lower the toxicity.

Information is also included on the dosage at which other harmful effects, such as irritancy, carcinogenicity and reproductive toxicity, were assessed.

Section 12: Environment

The Ecotoxicity (danger to the environment resulting from the product) is indicated in this section. It may state if the product is not regarded as a danger to the environment.

This section then breaks down the ecotoxicity into the persistence and degradability of the product, bioaccumulative potential, mobility in soil, results of the PBT and vPvB assessment, and any other adverse effects.

Section 13: Disposal

Methods for disposal will be clearly indicated in this section. This will include the volume of highly hazardous or less hazardous product that may be flushed into the sewer system and the methods for disposal of larger quantities.

Section 14: Transport

This section indicates if the product is classified for transport and if yes, the transport hazard class, the UN numbering, labelling and packaging group are required to be quoted.

Section 15: Regulation information

This section indicates the European Union and UK Government legislation governing the production of the safety data sheet.

It is crucial to check this section, to be certain the safety data sheet complies with current local legislation.

This section can also list the regulations used for the classification of the product and / or its ingredients.

Section 16: Other information

A full list of abbreviations and acronyms will be found in this section. Key literature and data sources are also included.

It is best practice to also include the date of the revision of the safety data sheet, comment on the changes made in the latest revision and the revision number.

The full hazard statements relating to the raw materials (ingredients in the product) as listed in section 3 are often included in this section, if there is no space for the full text in section 3. An example of a hazard statement in full is: H225 highly flammable liquid and vapour.

Users new to SDSs can look at this list of hazards and panic that these are all the hazards for the product! The Hazard Statements listed in Section 16 relate to the Raw Materials (Ingredients) in the Product (as listed in Section 3) and NOT the product itself. For the Hazard Statements relating to the Product see Section 2.

For more information, visit the Health and Safety Executive website: www.hse.gov.uk/coshh/basics/datasheets.htm