

Safety Data Sheets (SDS)



Understanding the 16-Section Global Standard for Chemical Safety, Hazard Communication, and Emergency Response.

What is an SDS?

The Global Standard

The transition from the old "MSDS" format to the modern "SDS" standardized chemical safety information under the UN's Globally Harmonized System (GHS).

Strict 16-Section Format

A strict, mandatory format ensures quick access to critical safety, handling, and emergency response data worldwide. No matter where you are, Section 4 will always be First-Aid, and Section 5 will always be Fire-Fighting.



1. Identification & Composition



1. Product & Company ID

Includes the exact chemical name, detailed manufacturer information, and a critical 24/7 emergency phone number.



2. Hazard Identification

Highlights danger/warning signs, standard GHS pictograms, and overarching health risk ratings for immediate awareness.



3. Chemical Composition

Breaks down the specific ingredients, exact CAS (Chemical Abstracts Service) numbers, and concentration percentages.

2. Emergency Response Procedures



4. First-Aid Measures

Provides critical exposure treatments categorized by route: eyes, skin contact, inhalation, and ingestion.



5. Fire-Fighting Measures

Details suitable extinguishing media, potential toxic gases produced during a fire, and required firefighter equipment.



6. Accidental Release

Outlines safe spill containment strategies, necessary evacuation protocols, and step-by-step cleanup procedures.

3. Handling, Exposure & Properties



7. Handling & Storage: Strict safe usage rules, specific storage temperatures, and lists of chemical incompatibilities to avoid reactions.



8. Exposure Controls / PPE: Legal exposure limits (PEL/TLV), necessary ventilation setups, and required Personal Protective Equipment (gear).



9. Physical & Chemical Properties: Data on physical state, color, odor, boiling point, flashpoint, and pH levels.



10. Stability & Reactivity: Information on chemical stability, specific conditions to avoid (like heat or light), and hazardous reactions.



11. Toxicological Info: Deep dive into health effects, primary exposure routes, and crucial carcinogen (cancer-causing) data.

4. Environment, Transport & Regs



12. Ecological Info*: Evaluates environmental impact, ecotoxicity, and how long the chemical persists in soil or water.



13. Disposal Considerations*: Guidelines for safe waste treatment, recycling options, and proper empty container disposal.



14. Transport Info*: Required UN shipping numbers, hazard classes, and packing groups for road, air, and sea freight.



15. Regulatory Info*: Overlap with national/international safety, health, and environmental rules and compliance laws.



16. Other Information: Contains the SDS creation date, recent revision history, and a key/legend for abbreviations used.

| Global Compliance

16

Standardized Sections

Universal Safety Language

The 16-section format allows workers, emergency responders, and safety professionals worldwide to quickly find life-saving information.

By standardising this data, the GHS reduces confusion during critical emergencies, ensuring that essential first-aid and firefighting protocols are consistently located in the same place on every safety data sheet worldwide.