



While reading the label is the first step in identifying the hazards associated with a chemical product, the Safety Data Sheet (SAFETY DATA SHEET) provides more detailed health and safety information. A MSDS is a document prepared by the manufacturer of the product to provide information to the end-user of the product.

Below is the format and contents recommended by NOHSC for the compilation of SDSs. You should expect to find the following information on your SDS:

Section 1 Identification of the Material and Supplier

Identifies the product so you can be sure you have the right SDS, and tells you how to contact the supplier.

- Product name and synonyms
- Recommended use
- Supplier name/ address/ telephone number/ emergency contact number

Section 2 Hazards Identification

Describes the hazards of the materials and the appropriate warning information (risk and safety phrases) associated with those hazards.

- Hazard classification, including a statement of overall hazardous and/ or dangerous nature
 - Risk phrase(s). Risk phrases convey a general description of the physicochemical, environmental and health hazards of a substance. For a complete list and description of the Risk phrases click on the following link:
http://www.ascc.gov.au/applications/hsis/risk_phrases.htm
 - Safety phrase(s). Safety phrases provide information on safe storage, handling, disposal, personal protection and first aid. For a complete list and description of the Safety phrases click on the following link:
http://www.ascc.gov.au/applications/hsis/risk_phrases.htm

Section 3 Composition/ Information on Ingredients

Identifies the ingredient(s) of the material.

- Chemical identity of ingredients
- Proportion of ingredients
- CAS number of ingredients

Section 4 First Aid Measures

Describes the initial care that can be given without the use of sophisticated equipment or medications.

- Description of necessary measures according to routes of exposure
- Lists any first-aid facilities required in the workplace



Section 5 Fire Fighting Measures

Describes the fire and explosive properties of the material and provides advice on how to deal with incidents, including suitable extinguishing media.

- Suitable extinguishing media
- Hazards from combustion products
- Special protective precautions and equipment for fire fighters
- Hazchem Code (which is used for responding to emergencies such as spills)

Section 6 Accidental Release Measures

Recommends the appropriate response to spills, leaks, or releases in order to prevent or minimise the adverse effects on persons, property and the environment.

- Emergency Procedures
- Methods and materials for containment and clean up

Section 7 Handling and Storage

Provides guidance on safe handling practices that minimise the potential hazards to people, property and the environment.

- Precautions for safe handling
- Conditions for safe storage, including any incompatibilities

Section 8 Exposure Controls/ Personal Protection

Details engineering control measures needed to minimise exposure to and risks associated with the hazards of the material.

- National exposure standards (concentration levels in air that must not be exceeded)
- Engineering controls (ways of reducing exposure, for example ventilation methods)
- Personal Protective Equipment (specific types of protective clothing such as gloves, or a respirator)

Section 9 Physical and Chemical Properties

Describes the empirical data of the material.

- Appearance □ Solubility
- Odour □ Specific Gravity
- pH □ % Volatiles
- Vapour Pressure □ Flammability
- Vapour Density □ Flash Point
- Boiling Point □ Upper and Lower Explosion
- Melting Point Limits
- Evaporation Rate



Section 10 Stability and Reactivity

Reactivity hazards of the material are described in this section.

- Chemical stability
- Conditions to avoid
- Incompatible materials
- Hazardous decomposition products
- Hazardous reactions

Section 11 Toxicological Information

Describes the potential adverse health effects and symptoms associated with exposure to the material and its ingredients or known by-products.

- Acute and/ or chronic health effects from the likely routes of exposure:
 - Ingestion (swallowed)
 - Eye
 - Skin
 - Inhalation

Section 12 Ecological Information

Provides information on the environmental impact of the material if it is released to the environment.

- Ecotoxicity
- Persistence and degradability
- Mobility
- Environmental fate
- Bioaccumulative potential

Section 13 Disposal Considerations

Provides information on disposal and recycling or reclamation of the material and/or its container.

- Disposal methods and containers
- Special precautions for landfill or incineration

Section 14 Transport Information

Gives Dangerous Goods Classification information for the preparation of a material for transporting/shipment.

- UN number. The United Nations (UN) number is an internationally recognised four digit number that designates the appropriate transport and storage requirements and Dangerous Goods Classification of a product.
- □ Packing group which indicates the degree of danger:
 - PG I -great danger,
 - PG II -medium danger,
 - PG III -minor danger.

□ Hazchem code. A code of numbers and letters that gives information to emergency services.

- ○ The number defines the Extinguishing Agent required;
- ○ The first letter determines the Personal Protective Equipment that should be worn and spillage treatment;
- ○ If an E is present, evacuation should be considered.
- Dangerous Goods Class and subsidiary risk. Dangerous Goods Class is a numerical classification based on the most significant risk associated with the product. Subsidiary and Tertiary are additional risk associated with the product.

1 EXPLOSIVES		5.2 ORGANIC PEROXIDES	
2.1 FLAMMABLE GASES		6.1 TOXIC SUBSTANCES	
2.2 NON-FLAMMABLE NON-TOXIC GASES		6.2 INFECTIOUS SUBSTANCES	
2.2 OXIDIZING GAS SUB RISK		7 RADIOACTIVE MATERIAL (CATEGORY I)	
5.1 (NITROUS OXIDE & OXYGEN ONLY)		7 RADIOACTIVE MATERIAL (CATEGORY II or III)	
2.3 TOXIC GASES		8 CORROSIVE SUBSTANCES	
3 FLAMMABLE LIQUIDS		9 MISCELLANEOUS DANGEROUS GOODS AND ARTICLES	
4.1 FLAMMABLE SOLIDS (and other reactive substances)		MIXED CLASS LABEL FOR ROAD AND RAIL TRANSPORT	
4.2 SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION		SUBSIDIARY RISK LABEL TO BE USED WITH ELEVATED TEMPERATURE SUBSTANCES	
4.3 SUBSTANCES THAT IN CONTACT WITH WATER EMIT FLAMMABLE GASES			
5.1 OXIDIZING SUBSTANCES			

Section 15 Transport Information

Describes other regulatory information on the material that is not provided elsewhere in the MSDS.

- Poison schedule

Section 16 Other Information

Provides information relevant to the preparation of the SDS.

- Review date (is it up to date – not more than 5 years old).
- Key to abbreviations