

### 3.3.5 Safety Data Sheets (SDS)

Safety Data Sheets provide valuable information on hazardous chemicals and must be stored in an orderly fashion and readily available for all chemicals in the laboratory. The SDS information is useful for establishing parameters for a safe workplace and is invaluable if emergencies involving the chemical occur. It is the responsibility of the laboratory supervisor to maintain the SDS and have appropriate instructions to find them in the need of emergency or special situations like spills. A copy of the SDS has to be submitted to the department of Environmental Health, Safety & Risk Management along with the annual chemical inventory list. For every new chemical purchased the SDS list has to be updated with the EHSRM.

A Safety Data Sheet (SDS) is a document that contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with the chemical product. It is an essential starting point for the development of a complete health and safety program. It also contains information on the use, storage, handling and emergency procedures all related to the hazards of the material. The SDS contains much more information about the material than the label. SDSs are prepared by the supplier or manufacturer of the material. It is intended to tell what the hazards of the product are, how to use the product safely, what to expect if the recommendations are not followed, what to do if accidents occur, how to recognize symptoms of overexposure, and what to do if such incidents occur.

If you do not have the SDS for any chemical:

- Call the manufacturer
- Click on the free SDS link on the website of EHSRM (<http://hq.msdsonline.com/sfasu/Search/Default.asp>)
- For further assistance call EHSRM at 468-6034

*A SDS usually will have the following structure: (some SDS might provide more information)*

1. [Chemical](#) Identity or Name.
2. [Manufacturer's](#) name, address, telephone number and emergency telephone number. Date the SDS was prepared and an optional signature of the preparer.
3. Lists the [hazardous](#) components by [chemical](#) identity and other common names. Includes OSHA PEL ([Permissible Exposure Limit](#)), [ACGIH](#) TLV ([Threshold Level Value](#)) and other recommended exposure limits.
4. Physical/[Chemical](#) Characteristics like [boiling point](#), [vapor pressure](#), [vapor density](#), specific gravity, [melting point](#), [evaporation rate](#), [solubility](#) in water, physical appearance and odor.
5. Fire and explosion hazard data, [flash point](#) (and method used to determine it), [flammability limits](#), [extinguishing media](#), special firefighting procedures, unusual fire and [explosion](#) hazards.
6. Reactivity Data like Stability, conditions to avoid, [incompatibility](#) (materials to avoid), hazardous [decomposition](#) or byproducts, hazardous [polymerization](#) (and conditions to avoid).

7. Health hazard data like routes of entry ([inhalation](#), [skin](#), [ingestion](#)), health hazards ([acute](#) = immediate and [chronic](#) = build up over time), [carcinogenicity](#) (NTP, IARC monographs, OSHA regulated), signs and symptoms of exposure, medical conditions generally aggravated by exposure, emergency and first aid procedures.
8. Precautions for safe Handling and use, like Steps to be taken in case material is released or spilled, waste disposal method, precautions to be taken in handling or storage, other precautions.

Control measures like [respiratory](#) protection (specify type [see [respirators](#)], [ventilation](#) (local, mechanical exhaust, special or other), protective gloves, eye protection, other [protective clothing or equipment](#), work/hygienic practices.