**Southwest Center for Microsystems Education (SCME)**

**University of New Mexico**

**MEMS Safety Topic**

**Safety Data Sheets (SDS)**

**Learning Module**

This Safety Data Sheets (SDS) Learning Module contains the following:

Knowledge Probe (KP / pretest)

**Primary Knowledge (Reading material)**

SDS Research Activity

SDS Activity for KOH

Activity Assessment for KOH

Final Assessment

*The purpose of this learning module is to provide information on the requirements and content of Safety Data Sheets (SDS), how to locate a SDS, and how to interpret a SDS. Activities allow students to demonstrate their ability to find a specific SDS and to extract and interpret important safety information from the SDS.*

A Learning Module Map is included for the instructor as a suggested outline on how to use this learning module.

Target audiences: High School, Community College, University

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Website: [www.scme-nm.org](http://www.scme-nm.org)

**Learning Module (LM) Map for Safety Data Sheets Learning Module**

Learning Module: Safety Data Sheets (SDS)

*The purpose of this learning module is to provide information on the requirements and content of Safety Data Sheets (SDS), how to locate a SDS, and how to interpret a SDS. Activities allow students to demonstrate their ability to find a specific SDS and to extract and interpret important safety information from the SDS.*

Learning Module units (6):

* Knowledge Probe (pre-test)
* Primary Knowledge Unit
* SDS Research Activity
* SDS for KOH (Potassium Hydroxide) Activity
* Assessment for KOH Activity
* LM Assessment

**Following is a suggested map on the implementation of this learning module**.

|  |  |  |
| --- | --- | --- |
| **IMPORTANT STEPS** | **KEY POINTS** | **REASONS** |
| Knowledge Probe (KP) or pre-test | Have the participants complete the Knowledge Probe for this learning module. | Completion of the KP will allow you to identify what the participants know and do not know about SDSs. |
| Present the Safety Data Sheets PK | Participants should read the PK.  A PowerPoint presentation can be downloaded by the instructor from scme-nm.org and presented to all participants. | An introduction into the SDS is needed to assist the participants in the completion of the two activities which require the interpretation of several SDSs. |
| Complete the SDS Internet Research Activity | Participants locate a specific SDS on the Internet and extract specific information. | This activity helps the participants be able to locate and interpret a variety of SDSs. |
| Complete the KOH SDS Activity (optional) | Participants locate a SDS for KOH (potassium hydroxide) and extract specific information that will help them identify the potential hazards of this chemical. | KOH (potassium hydroxide) is used in the fabrication of MEMS devices; therefore, participants should understand the hazards associated with this chemical. |
| Complete the assessment for the KOH Activity. (optional) | This assessment should be completed by participants that plan to study MEMS fabrication or who plan to enter a MEMS fabrication facility. | Because KOH is used in the fabrication of MEMS devices, this assessment will ensure that the participants are aware and knowledgeable about the potential hazards of KOH. |
| SDS Assessment | Give the participants the SDS assessment. | Participants are evaluated on what they have learned about locating and interpreting a SDS. |

*Adapted from Graupp, P. & Wrona, R. (2006) The TWI Workbook: Essential Skills for Supervisors. New York, NY. Productivity Press.*