

**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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## 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 <u>Safety Data Sheets PK</u>	Participants should read the PK.  A PowerPoint presentation can be downloaded by the instructor from <a href="http://scme-nm.org">scme-nm.org</a> 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 <u>SDS Internet Research Activity</u>	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 <u>KOH SDS Activity</u> (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 <u>SDS</u> 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.*