



THE UNIVERSITY OF WESTERN ONTARIO
OCCUPATIONAL HEALTH AND SAFETY

DESIGNATED SUBSTANCES PROGRAM
SILICA

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INTRODUCTION:

Silica is prescribed as a designated substance under the "*Regulation respecting Silica - made under the Occupational Health and Safety Act*", [R.R.O. 1990, Reg. 845 as amended by O. Reg. 521/92; 391/00, 111/04]. Designated substance regulations apply to employers and workers at workplaces where two conditions are met:

- the substance is present in the workplace, and
- a worker is likely to inhale, ingest or absorb some of the substance that is present.

The designated substance regulations require that an assessment be conducted to determine the extent to which workers are exposed to the substance. The assessment is done to determine:

- whether workers are inhaling, ingesting or absorbing the substance at present or whether they are likely to do so in the future; and
- whether or not the health of a worker may be affected by exposure to the substance.

This assessment covers the following details:

- the methods and procedures used in the processing, use, handling or storage of the substance;
- the actual and the potential exposure of workers to the substance; and
- the measures and procedures necessary to control such exposure by means of engineering controls, work practices, and hygiene practices and facilities.

RESPONSIBILITIES:

Every person working with silica is responsible for following safe work practices. The Principal Investigator/supervisor is responsible for ensuring that an inventory of all designated substances is maintained, including recording of the amount used. The inventory is to be submitted to Occupational Health and Safety (OHS). The Principal Investigator/supervisor is responsible for ensuring adequate training is provided to employees and that safety equipment is used, including personal protective equipment and engineering controls e.g. fumehoods.

IDENTIFICATION AND USE:

"Silica" means crystalline silica in a respirable form. (Section 1) Employees using/exposed to silica are to submit a Designated Substance Inventory form to OHS indicating the location and the amount used. The forms are stored in the "Designated Substance" binder and the information on them is also stored in the Lab Safety Database. The majority of silica used at UWO is in a non-respirable form.

EXPOSURE POTENTIAL / CONTROL MEASURES:

Exposure Potential

The amounts of silica used at UWO are small or is non-respirable and therefore the exposure potential is low. Each location listed will be assessed depending on the amount and form used.

In order to ensure that the potential for exposure remains low:

- Only the minimum amount of a chemical should be purchased.
 - All spills must be cleaned up immediately.
 - Waste silica must be properly collected and disposed of promptly.
- Call Campus Community Police Services (CCPS) @ 911 for the UWO Hazardous Material Response Team who, will respond to all hazardous materials emergencies, including

designated substances. The team is equipped with the proper personal protective equipment and is always on call to deal with all situations involving hazardous materials emergencies

Control Measures

Employees handling silica are required to follow the procedure for handling chemicals according to the Laboratory Health and Safety Manual, the Hazardous Materials Management Handbook

ASSESSMENT

Each location listed will be assessed depending on the amount and form used. The information will be stored in the Lab Safety Database. If an assessment is required, a Silica Assessment Form (Appendix 1) is to be completed and stored in the "Designated Substance" binder. Should an assessment result in the need for a control program this will be implemented as required.

MEDICAL SURVEILLANCE

Each employee at UWO is to have a [Position Hazard Communication Form](#) filled out by their supervisor and submitted to Workplace Health. If medical surveillance is required, staff health will arrange the necessary tests as required. Should the employee decide not to participate in a medical surveillance program, a waiver must be signed by the employee.

TRAINING

The supervisor is responsible for ensuring all personnel are trained in the handling of the silica that they are working with. All training is to be documented and the records kept.

