Designated substances:

A health hazard may be lurking around the corner

Have you ever broken through a painted wall, removed some brake pads, welded or cut some unknown metal, or spliced some electrical cable? Before doing so, did you ask yourself if any of these things could contain hazardous materials? It is important to remember that not all dangers are out in the open—some may be hidden. In fact, we can come into contact with dangerous substances every day without even realizing it.

Some workers encounter hazardous substances by surprise when performing routine tasks. To protect workers from that kind of unexpected exposure, regulations have been made under the *Occupational Health and Safety Act* (OHSA). Most hazardous substances are covered by the *WHMIS Regulation* (Reg. 860) or the *Control of Exposure to Biological or Chemical Agents Regulation* (Reg. 833). However, there is a separate regulation for 11 chemical agents that have been classified as "designated substances." The *Designated Substances Regulation* (Reg. 490) regulates exposure to designated substances in the workplace and outlines different ways to control the hazards posed by those substances. The designated substances most likely to be encountered on construction projects and their locations are listed on the following page.

What is a designated substance?

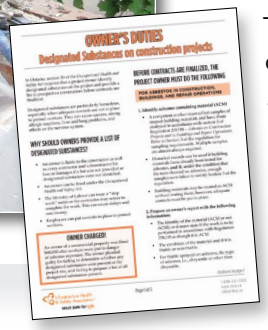
A designated substance is defined by the OHSA as "a biological, chemical or physical agent or combination thereof prescribed as a designated substance to which the exposure of a worker is prohibited, regulated, restricted, limited or controlled."

Did you know?

Regulation 490 - *Designated Substances* does not apply to asbestos on construction and demolition projects. Instead, Regulation 278 – *Asbestos on Construction Projects and in Buildings and Repair Operations* comes into effect. It significantly increases safety requirements for the handling of asbestos.

Identifying designated substances

Designated substances are especially dangerous when adequate controls are not put in place to protect workers. On a construction site, the project owner is legally required to identify any designated substances and make a list of them. This list must be given to contractors as part of the bidding process and before any contracts are finalized.


OWNER'S DUTIES
Designated Substances on construction projects

To help owners meet this requirement, IHSA has developed the guide *Owner's Duties: Designated Substances on Construction Projects* (W130), which outlines the owner's duties under the OHSA and explains how to identify designated substances before a project goes to tender.

For workplaces other than construction sites, the employer must perform an assessment to determine if workers are likely to be exposed to any designated substances. If the chances are high, the employer must set up a control program to reduce the risks.

Designated substance	Common locations
Asbestos	insulation, wallboard, asphalt, adhesives, caulking, ceiling and floor tiles, gaskets, drywall compound, plaster, and roofing shingles
Isocyanates	spray foam insulation, sealants, finishes, paint, and auto-body materials
Lead	old paint, old mortar, old water pipes, lead sheeting, and contaminated soil
Mercury	fluorescent lights, switches, pressure gauges, electrodes, and contaminated soil
Silica	bricks and blocks, granite, abrasives, concrete, sandstone, cement, and mortar

Dangers of exposure

Exposure to designated substances can cause cancer, strong allergic reactions, liver and lung disorders, and damage to the nervous system. However, the signs are not always immediate or obvious. Sometimes it can take years or even decades before the symptoms of a disease or disorder appear. And keep in mind that some people are more sensitive to chemicals than others. Factors such as genetics, allergies, pre-existing conditions, lifestyle, and age can affect how quickly the effects of exposure can be seen or felt.

So give some thought to any hidden health hazards that may be present at your work site. And remember—if you think your health might be in danger, you have the right to know. Don't be afraid to ask questions.