Tool Box Talk

# Combustible Materials

## What Are Combustible Materials

Combustible materials are listed under Class B: Flammable and Combustible Material of the WHMIS classifications of hazardous materials. This includes solids, liquids and gases capable of catching fire in the presence of a spark or open flame under normal working conditions. Combustible materials usually need to be heated above normal temperatures before they will burn or catch fire (above 38º Celsius), but are capable doing so at temperatures below that. Common Combustible materials on construction worksites include:

**Solid Elements**

- Wood
- Saw dust

**Liquid Elements**

- Fuels such as gasoline or propane
- Solvents or thinners
- Paints and varnishes
- Cleaners, waxes or polishes
- Adhesives

It is important to remember that these materials are present on almost all worksites and workers must be aware of the risks associated with using combustible materials.

## Dangers of Combustible Materials

Combustible liquids themselves do not burn. It is the vapours that can ignite when mixed with the air. Each combustible liquid has a different flashpoint. A flashpoint is the temperature that must be reached for the liquid to release enough vapour in the air for ignition. For example, the substance Phenol has a flashpoint of 79º Celsius. At this temperature the substances vapours could begin burning if they came into contact with an ignition source such as a flame or spark.

Vapours also have hidden properties that make them exceptionally dangerous. Most vapours are invisible making it difficult for workers to identify their presence. Vapours are heavier than air so they stay near the ground and can gather in low places such as pits, trenches and basements. This makes ventilation essential when dealing with combustible liquids.

Finally combustible liquids can leave vapour trails, that when ignited can travel back to the source of the liquid. For example, if a combustible liquid is spilled on a workers sleeve, a flame could travel along the vapour trail and burn the worker even if he or she is at a distance from the source of ignition. Combustible materials also have other potential dangers besides their ability to burn. Some liquids can cause health problems depending on the specific material and route of exposure. Some liquids are corrosive and can cause chemical burns. Many liquids can undergo chemical reactions if they contact incompatible chemicals such as oxidizing materials or if they are stored improperly.

## Safety Tips for Handling Combustible Materials

**Know the materials you are working with**. Each combustible material has different properties such as flashpoint and effects of exposure. The Safety Data Sheets (SDS) supplier labels should tell you about the hazards for the combustible liquids you work with.

**Know your environment**. Remember there are many hidden ignition sources; always assume there are ignition sources around you. Knowing your environment will help you stay out of potentially hazardous situations.

**Handle with care**. The best method of safety is always prevention. Most combustible liquids will never have a chance to produce harmful vapour if handled properly. Follow the safe work procedures outlined for handling controlled products and always ensure you wear the appropriate personal protective equipment when necessary

# Tool Box Talk

When accidents and incidents happen on the jobsite, we are always quick to point the finger at lack of training, not following practices or procedures, or even improper supervision. The idea that the hazards and dangers associated with the job were not properly communicated to all of the workers is often missed.

Tool Box Talks can go by many names, and although formats may vary, these meetings all serve one purpose: to inform employees and contract workers. Tool Box Talks are short, informal, meetings between management and the workers on a jobsite. The goal of these meetings is to reinforce current safe job procedures, inform workers of new and/or relevant procedures, review recent safety violations/incidents, and ensure workers are up-to-date on the information required to complete their work safely.

Always use a Tool Box Talk form to record the meeting topic, date, who was in attendance, and any follow-up actions to be taken. Not only do these forms help with consistency of record keeping, but they also ensure that nothing is missed. At the end of the meeting have management sign off on the form.

One of the most important aspects of a Tool Box Talk is giving workers an opportunity to voice their concerns and ask questions. All employees have a right to participate in health and safety as it relates to their work and it is the supervisor or manager's responsibility to create an environment for them to do so. Once the meeting is over, and the form is filled out, it should be filed with other documented Tool Box Talks.

Remember that Tool Box Talks are short and informal, they are not meant to be intimidating. Use the opportunity to have fun and stay on top of what is necessary to keep safety culture a strong part of the business.

For a full listing of Tool Box Talk topics, visit: www.scsaonline.ca/resources/tool-box-talks

For a copy of the Tool Box Talk form, visit: www.scsaonline.ca/pdf/Tool_Box_Meeting.pdf

## About the Saskatchewan Construction Safety Association

The Saskatchewan Construction Safety Association (SCSA) is an industry-funded, membership-based, nonprofit organization that provides cost-effective, accessible safety training and advice to employers and employees in the construction industry throughout the province to reduce the human and financial losses associated with injuries. Registered March 20, 1995, the SCSA is, and has been since inception, committed to injury prevention. Serving almost 10,000 member companies with business offices in both Regina and Saskatoon, the major business units of the association are Advisory Services, Business Development, Corporate Services, Program Services and Training. The mission of the SCSA is constructing safety leadership in Saskatchewan and the vision is to create the safest construction environment in Canada.