

Toolbox Talk



Chemical Safety

Issued - May 2016

Hazards associated with working with Chemicals

Exposure to some chemicals at home or in the workplace, without using adequate precautions can have a major impact on your health. Shortly after exposure you may suffer from short term (acute) effects such as headaches, nausea, vomiting or burns if you are using corrosive chemicals. Long term (chronic) effects (which may be identified soon after exposure or can be considerably delayed) include occupational asthma, chemical poisoning, skin irritation (dermatitis), nervous system disorders and long-term diseases such as cancer.

Chemical characteristics

Hazardous substances can take many forms including

- ▶ **Solids** - Dusts, fibres, granules and powders such as asbestos, talc, cadmium
- ▶ **Liquids** - Petrol, solvents, paint
- ▶ **Vapours & Mists** - Spray painting, fumes emitted from fuels or the heating of substances
- ▶ **Gases** – Carbon monoxide, chlorine, acetylene.

Routes of Exposure

Chemicals can enter the body and become harmful via the following routes of exposure

- ▶ Inhalation - Breathing in and absorbing the substance through the respiratory system
- ▶ Absorption – Direct contact with the body through the skin or the eyes
- ▶ Ingestion – Eating with contaminated hands
- ▶ Injection – Needle stick injuries or lacerations from contaminated equipment

Chemicals may also be flammable, explosive or corrosive in nature and have the potential to cause harm to people and the surrounding environment in certain conditions.

Safe systems of work, Safety Data Sheets (SDS)

A Safety Data Sheet (SDS) (previously referred to as a Material Safety Data Sheet (MSDS)) is a document that contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with the chemical product. It also contains information on the use, storage, handling, first aid, recommended PPE and emergency procedures related to the hazards of the material. An SDS must be made available for any chemical used in your workplace, you should read and understand the safety requirements within it prior to performing any task using chemicals.

Chemicals Management Requirements

- ▶ All bottles, jugs, pipes, containers or tanks containing chemicals must be labelled
- ▶ You must wear the appropriate PPE when you are likely to be exposed to the substance
- ▶ Chemicals must be stored safely away from any potential source of damage (vehicle movement, ignition sources) and from other substances that they may react to as identified in the chemicals SDS
- ▶ Training is required for personnel working with chemicals on the safe handling of chemicals, specific procedures, instructions and safe work practices associated with the task being performed
- ▶ Appropriate spill kits or spill containment measures should be nearby to contain any spills
- ▶ A register of the chemicals on site must be maintained and risk assessments must be conducted for any high risk activities
- ▶ It is a legislative requirement that Health surveillances (medical testing) must be conducted for personnel working with certain substances to ensure there are no negative impacts on their health.

Make sure you understand the hazards associated with the chemical you are working with and follow all guidance provided, to ensure you have a safe and healthy future.

