

FEB'22 TOOLBOX TALK – ‘Hazardous Substances’

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“When working in construction we can come in contact with a number of hazardous substances. It is imperative that all parties are aware of the significance of the ill health effects these cause and the main risk factors behind them.” (Aoife Gilheany, Head of Health and Safety, SONICA)



Safety Data Sheets

A Safety Data Sheet (SDS) must be in place for each hazardous chemical that is present/used. Inform all employees where the SDS’ are located on site and make sure they are familiar with the relevant versions. The SDS must include the following 16 headings:

Identification of the substance	Physical & chemical properties
Hazard Identification	Stability and reactivity
Information on Ingredients	Toxicological information
First Aid Measures	Ecological information
Fire-fighting measures	Disposal consideration
Accidental release measures	Transport information
Handling and Storage	Regulatory information
Exposure controls/personal protection	Other information

Handling & Storing of Hazardous Materials

Complete a Chemical Risk Assessment

1. Make an inventory of what substances are used / generated through tasks on site
2. Gather information on the substances – maintain up to date Safety Data Sheets (SDS)
3. Assess exposure to these substances - type, intensity, duration and occurrence
4. Decide and implement suitable controls – ventilation (local exhaust), Respiratory Protective Equipment (RPE), Personal Protective Equipment (PPE), emergency procedures.

Provide Correct Training

Everyone must be aware of the hazardous materials they are likely to handle and potentially be exposed to on site. They should also be aware of the specific measures and precautions they must take when exposed to these materials.

Provide Additional PPE

In addition to the standard PPE, those who are handling or may encounter hazardous substances must be provided with specific PPE to reduce the risk of injury or illness from their dealing with these materials. This may include goggles, aprons, face shields or respirators - as determined by risk assessment and review of the associated Safety Data Sheet.

Limit the Use & Storage of Hazardous Materials

In planning the task and materials to be used, the hazardous materials can be handled in a minimum way and moved around site less often. Estimate the required level of hazardous substances required and store only this amount on site. The storage area should be considered in relation to the location of the task and method of transport.

Chemical Storage

- Chemicals to be stored in a bund. The bund should be 110% of the capacity of the largest chemical container you are storing
- A spill kit should be located in the storage area
- Certain chemicals cannot be stored together, as noted in the Safety Data Sheet
- Eye wash stations located in the area
- Containers all to be in good condition - any damaged containers to be disposed of.

Emergency Preparedness

- Any workplace that uses or stores hazardous chemicals should have appropriate emergency response plan and first aid equipment readily available, and personnel trained in the use of the equipment.
- Fire- fighting equipment must be suitable for the fire scenarios identified such as flammable liquid, flammable solid, electrical equipment fires etc.
- Emergency response plans are required to be prepared and implements for accident scenarios involving the full range of chemical hazard classes identified in the storage area.
- Equipment such as fire extinguishers, first-aid boxes, emergency showers/eye washes should be inspected and tested at suitable intervals and records of same maintained.

Construction Dust

- Complete a Risk Assessment for the task-including those completing the works and those that will also be in nearby vicinity
- Use the right amount of building materials so less cutting or preparation is needed.
- Respirators may be required depending on the risk assessment.
- Design for elimination and substitution of non-silica or lower silica materials – e.g. precast formation of opes
- Local exhaust ventilation
- Dust suppression - wet coring
- Clean-up using a vacuum (as opposed to sweeping)
- Reduce exposure time.

Controls when Welding

1. Use alternative cold joining techniques where possible
2. Weld in a way that produces less fumes
3. Implement local exhaust ventilation
4. Use Respiratory Protective Equipment (RPE) along with Personal Protective Equipment (PPE).