Tool Box Talk

Inert Gas Safety

Inert (noble) gases are odourless and colourless gases that do not burn or explode and contain very low chemical reactivity under normal conditions.

These six noble, naturally occurring gases – Helium, Neon, Argon, Krypton, Xenon and Radon – can, however, displace enough air to reduce oxygen levels and cause injury or death if present in sufficiently high concentrations.

Low oxygen levels are particularly problematic in poorly-ventilated, confined spaces.

Oxygen levels that are low enough can also cause a loss of consciousness and death due to asphyxiation.

Argon and Neon Gas

In the construction industry, Argon and Neon are used regularly. Argon acts as a shielding gas in welding because it does not react with other gases and metals that are present. It can also be used as an insulator in the manufacturing of metals since it displaces unwanted gases, such as carbon monoxide and prevents rusting (oxidation).

Neon is commonly used for lighting, signs, high-voltage indicators, lightning arresters (devices used in electric power systems), gas lasers and refrigeration.

Both Argon and Neon gases share the following Safety Data Sheet (SDS) information:

Hazardous Product Identification

Hazardous products with this pictogram are gases that are contained in a receptacle under pressure, or which are liquefied or liquefied and refrigerated.

The hazards presented by these products are related to high pressure or cold temperatures. Hazardous products with this pictogram can be worked with safely if proper storage and handling practices are followed.

For more information on this and other pictograms, please visit https://whmis.org/

Hazard Identification

- Simple asphyxiant; compressed gas
- Contains gas under pressure; may explode if heated; may displace oxygen and cause rapid suffocation
- Asphyxiant in high concentrations

First Aid Measures

- **After inhalation**: remove the victim to an uncontaminated area wearing self contained breathing apparatus. Keep the victim warm and rested. Call a doctor. Apply artificial respiration if breathing has stopped.
- **After skin contact:** Adverse effects not expected from this product.
- **After eye contact:** Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately. Get immediate medical attention.
- **After ingestion:** Ingestion is not considered a potential route of exposure.

Individual Protection Measures

- Wear safety glasses, a face shield and working gloves when handling gas containers.
- Refer to individual SDSs for specific eye protection and respiratory protection measures.
- Ensure equipment is selected based on provincial regulations and based on the current CSA standards.
- Ensure workers are trained on any products in use on the worksite, the hazards associated with them, and the emergency response measures to be taken in the event of an incident.

Visit the SCSA's website to register for Confined Space training for more in-depth knowledge on this topic.