

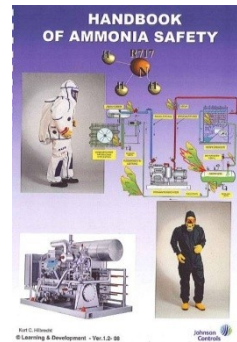
# Toolbox Talk

## 04. Ammonia



### What?

- Ammonia is a colourless, pungent gas composed of nitrogen and hydrogen, chemical formula  $NH_3$ . It is easily liquefied by compression when it then has cooling properties for use in refrigeration and air-conditioning equipment. It is normally manufactured in large quantities and was commonly used prior to the introduction of chlorofluorocarbons. Anhydrous ammonia is widely used in industrial refrigeration applications because of its high energy efficiency and low cost



### Why?

- Inhaling ammonia or getting liquid ammonia on your skin can cause burning, unconsciousness, or death, so always use caution when handling this chemical
- Ammonia is an hygroscopic compound (it seeks water from the nearest source, including the human body). This places the eyes, lungs, and skin at greatest risk because of their high moisture content. Caustic burns result when anhydrous ammonia dissolves into body tissue

### Do



- Only work on ammonia systems if you have been trained and authorised
- Refer to the Company Handbook of Ammonia Safety before working on this type of system
- Remember to wear your approved PPE at all times
- Ensure that you have a spare respirator cartridge at all times
- Remember the dangers: it is toxic, colourless, lighter than air and highly corrosive



### Don't



- Take chances
- Use damaged equipment
- Forget to use or wear all the necessary PPE
- Start work until you have undertaken your risk assessment and implemented a suitable safe system of work



Document Name	TBT 4 Ammonia	Document No	FM/HS/TBT/006
Document Owner	Stuart Care	Date of Issue	13/01/2017
Classification	Internal Use	Version No	01