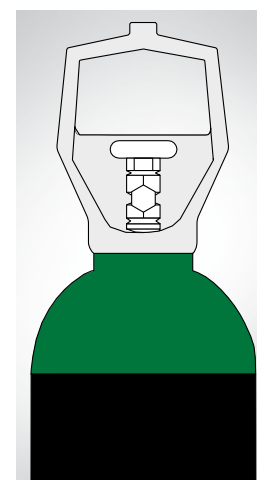




Safety instruction. Argon Ar.



Argon Ar (Industrial)

Features Gaseous argon is colourless, odourless and tasteless; it is slightly heavier than air. Liquid argon is odourless, colourless and boils at -186°C . One litre of liquid argon yields about 825 litres of gaseous argon. Argon is non-corrosive, non-flammable and non-toxic. Its concentration in the air is about 0.9%.

Security risks An increase of argon in breathable air poses a choking hazard and cannot be detected without equipment. Breathing pure argon causes immediate unconsciousness and almost instant death. When liquid argon evaporates, the vaporised gas is very cold and much heavier than air. It can therefore accumulate in drains and basements and cause an increase in argon levels.

Frostbite Liquid argon and cold argon vapours can cause skin damage similar to burns. Bare skin contact with uninsulated parts of the device may cause the skin to stick and tear when removed. If this happens, the damaged areas should be immediately rinsed with plenty of lukewarm water and not rubbed. Contact the medical staff.

Choice of material Certain steels, such as carbon steel and some other materials, are unsuitable for use at low temperatures because they lose their impact resistance and become very brittle. Materials normally suitable for use at low temperatures include stainless steel, aluminium, copper and its alloys. Where liquid argon is handled, care must be taken to ensure that it does not come into contact with unsuitable materials such as cold-hardened steel or vehicle tyres.

Security measures Rooms where argon is stored or used should be well ventilated. Do not enter a room where there may be elevated argon levels. When in doubt, air should be tested with an analyser and/or respiratory equipment should be used. When handling liquid argon, wear suitable gloves and eye protection, safety shoes and body protection.

First aid Any person showing symptoms of oxygen deprivation should be moved immediately to fresh air. A person who is unconscious or not breathing must be given artificial respiration immediately - **it is a matter of seconds**. Medical personnel must be called immediately. The person must be kept warm and at rest. It is very important that the personnel who carry out rescue operations minimise their own risk factors.
A rescuer should not enter an area where there is an oxygen barrier without suitable breathing equipment.

Fire prevention Argon does not burn, and no special fire protection systems or equipment are needed. If possible, move the cylinders to a safe place. Protect gas cylinders from heating to avoid the risk of explosion.