

MATERIAL SAFETY DATA SHEET – ARGON

1. INGREDIENT NAME	I.S.No.	PERCENTAGE	CHEMICAL NAME	TRADE NAME
ARGON	5760:1998	>99%	Ar	Argon

**4. FIRE FIGHTING MEASURES**

Extinguishing media As Argon is an inert gas, it does not contribute to the fire, but could help with the extinguishing by reducing the oxygen Content of the air by dilution to below the level to support combustion.

**2. HAZARDS IDENTIFICATION**

**Main Hazards** All cylinders are portable gas containers, and must be regarded as pressure vessels at all times. Argon does not support life. It can act as a simple asphyxiant by diluting the concentration of oxygen in air below the levels necessary to support life.

**Specific Hazards** Argon does not support life. It can act as a simple asphyxiant by diluting the concentration of oxygen in the air below the levels to support life.

**Emergency Actions** If possible, shut off the source of excess Argon. Evacuate area. All cylinders should be removed From the vicinity of the fire. Cylinders that cannot be removed should be cooled with water from a safe distance to prevent the build-up of excessive pressure. Cylinders which have been exposed to Excessive heat should be clearly identified and returned to the supplier. CONTACT THE NEAREST AFROX BRANCH.

**Adverse health effects.** Inhalation of Argon in excessive concentrations can result in dizziness, nausea, vomiting, loss of consciousness and death.

**Chemical Hazards** Argon is extremely inert and forms no known Chemical compounds.

**Protective clothing** Self-contained breathing apparatus. Safety gloves, goggles and shoes, or boots, should be worn when handling cylinders.

**Biological Hazards** No known effect.  
**Vapour Inhalation** As Argon acts as a simple asphyxiant death may result from errors in judgement, confusion, or loss of consciousness which prevents self-rescue. At low oxygen concentrations, unconsciousness and death may occur in seconds without warning

**Environmental precautions.** Argon is heavier than air and could accumulate in low-lying areas. Care should be taken when entering a potentially oxygen-deficient environment. If possible, ventilate the affected area.

**Eye Contact** No known effect.

**Skin Contact** Non known effect

**Ingestion** (See "Vapour Inhalation" above)

**5. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions** Do not enter any area where Argon has been spilled unless tests have shown that it is safe to do so.

**Environmental precautions.** Argon does not pose a hazard to the environment.

**Small spills** Shut off the source of escaping Argon. Ventilate the area.

**Large spills** Evacuate the area. Shut off the source of the spill if this can be done without risk. Restrict access to the area until completion of the clean-up procedure. Ventilate the area are Using forced-draught if necessary.

**3. FIRST AID MEASURES**

Prompt medical attention is mandatory in all cases of overexposure to Argon. Rescue personnel should be equipped with self-contained Breathing apparatus. Conscious persons should be assisted to an Uncontaminated area and inhale fresh air. Quick removal from the Contaminated area is most important. Unconscious persons should be removed to an uncontaminated area, and given mouth-to-mouth resuscitation and supplemental oxygen.

**Eye Contact** No known effect

**Skin Contact** No known effect

**Ingestion** (See section 3 above)

**6. HANDLING AND STORAGE**

Do not allow cylinders to slide or come into contact with sharp edges. Argon cylinders may be stacked horizontally provided that they are firmly secured at each end to prevent rolling. Use a "first in - first out" inventory system to prevent full cylinders from being stored for excessive period of time. Keep out of reach of children.

**7. EXPOSURE CONTROL/PERSONAL PROTECTION**

**Occupational Exposure Hazards.** As Argon is a simply asphyxiant, avoid any areas where spillage has taken place. Only enter once testing has proved the atmosphere to be safe.

**Engineering control measures.** Engineering control measures are preferred to reduce exposure to oxygen-depleted atmospheres. General methods include forced-draught ventilation, separate from other exhaust ventilation systems. Ensure that sufficient fresh air enters at, or near, floor level.

**Personal protection** Self – contained breathing apparatus should always be worn when entering area where oxygen depletion may have occurred. Safety goggles, gloves and shoes or boots should be worn when handling cylinders.

**SKIN** No Known effect.

## 8. PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL DATA

Chemical Symbol	- Ar
Molecular Weight	39,948
Specific Volume @ 20 C & 101,325 kPa	603,7ml/g
Colour	None
Taste	None
Odour	None

### 9. STABILITY AND REACTIVITY

Conditions to avoid The dilution of the oxygen concentration in the Atmosphere to levels which cannot support life. Never cylinders as rollers or supports, or for any other purpose than the storing of Argon. Never expose cylinders to excessive heat, as this may cause sufficient build-up of pressure to rupture the cylinders.

Incompatible Materials. As Argon is inert it may be contained in systems constructed of any of the common metals which have been designed to safely withstand the pressures involved.

### 10. ECOLOGICAL INFORMATION

Argon is heavier than air and can cause pockets of oxygen-depleted atmosphere in low-lying areas. It does not pose a hazard to the ecology.

### 11. DISPOSAL CONSIDERATION

Disposal Methods. Small amounts may be blown to the atmosphere Under controlled conditions. Large amounts should Only be handled by the gas supplier.

Disposal of packaging. The disposal of cylinders must only be Handled by the gas supplier.

