



**1 PRODUCT AND COMPANY IDENTIFICATION**

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<b>Product Name</b>	Argon Co2 gases
<b>Chemical Formula</b>	Ar + CO2
<b>Company Identification</b>	Rakeeth Ind Gases co llc 483/1 Street Al Sajaa industrial area Sharjah, UAE Mob No. 0565264603 Tel No.065265161
<b>Emergency Number</b>	<b>997 CIVIL DEFENCE UAE</b>

**2 HAZARDS IDENTIFICATION**

The above listed Argon+Co2 gas mixture does not support life. It can act as simple asphyxiant by diluting the concentration of oxygen in the air to below levels necessary to support life.

**Main Hazards** **Adverse Health effects.** The carbon dioxide component, of the above

mixture could act as a stimulant and a depressant on the central nervous system. Increases in heart rate and blood pressure have been noted at a concentration of 7.6 percent, and dyspnea (laboured breathing), headache, dizziness and sweating occur if exposure at that level is prolonged.

**Chemical hazards**

The Argon component of the above gas mixture is extremely inert and forms no known chemical compound. However, Carbon dioxide is relatively non-reactive and non-toxic. It will not burn or support combustion. In the presence of moisture it can aggressively bring about corrosion in a variety of steel materials. The greatest physiological effect Carbon dioxide is to stimulate the respiratory centre, thereby controlling the volume and rate of respiration. It is able to cause dilation and constriction of blood vessels and is a vital constituent of the acid-base mechanism that controls the pH of the blood.

**Biological Hazards**

At concentrations of approximately 10 percent and above, unconsciousness can result in one minute or less. Impairment of performance has been noted during prolonged exposure to concentrations of 3% carbon dioxide even when the oxygen concentrations were 21%. No known effect.

**Vapour inhalation**

No known effect.  
See "Vapour inhalation" above

**Eye Contact**

**Skin Contact**

**Ingestion**

**Chemical Formula**

**Trade Names**

**Colour coding**

**Valves**

**UN No.**

**ERG No**

**Hazchem Warning**

**3 COMPOSITION/INFORMATION ON**

**INGREDIENTS**

Ar + CO2

Fluxshield

Stainshield Plus

Fluxshield : Metallic blue body and valve guard with light Brunswick green shoulder with he relevant decal on the neck ring to identify the product.

Stainshield Plus: Metallic blue body and valve guard with light Brunswick green shoulder with he relevant decal on the neck ring to identify the

3 SO – Brass 5/8 inch BSP right hand female valve.

1956

121

2 C Non-flammable gas

**4 FIRST AID MEASURES**

Prompt medical attention is mandatory in all cases of overexposure to any of the Argon+Co2 gases. Rescue personnel should be equipped with self-contained breathing apparatus. Relatively low concentrations of carbon dioxide may cause headache, sweating, rapid breathing, increased heartbeat, shortness of breath, dizziness, mental depression, visual disturbances and shaking. 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)

**5 FIRE FIGHTING MEASURES**

**Extinguishing media** As both Argon and Carbon dioxide do not support combustion, they will not contribute to the fire but could help with the extinguishing by diluting the oxygen concentration of the air by dilution to below the level to support combustion.

**Specific hazards** This Argon+Co2 gas does not support life. It can act as simple asphyxiant by diluting the concentration of oxygen in the air below levels to support life.

**Emergency**

**actions** If possible, shut off the source of excess Argon+Co2 gas. 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.

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

**Environmental precautions** This Argon+Co2 gas 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.

**6 ACCIDENTAL RELEASE MEASURES**

**Personal**

**precautions**

Do not enter any area where Argon+Co2 gas has been spilled unless tests have shown that it is safe to do so.

**Environmental**

Argon+Co2 gas does not pose a hazard to the

**Small spills**

Shut off the source of escaping Argon+Co2 gas. 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 using forced draught if necessary.

**7 HANDLING AND STORAGE**

Do not allow cylinders to slide or come into contact with sharp edges. Argon+Co2 gas cylinders may be stacked horizontally provided that they are firmly secured at each end to prevent rolling. Use the "first-in first-out" inventory system to prevent full cylinders from being stored for excessive periods of time. Keep out of reach of children.



## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Occupational exposure hazards:</b>	As Argon+Co2 gases are simple asphyxiants, avoid areas where spillage has taken place. Only enter once testing has proved the atmosphere to be safe.
<b>Engineering control measures</b>	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.
<b>Personal protection</b>	Self-contained breathing apparatus should always be worn when entering an area where oxygen depletion may have occurred. Safety goggles, gloves and shoes, or boots, should be worn when handling cylinders.
<b>Skin</b>	No known effect.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL DATA

<b>Argon</b>	
Chemical Symbol	Ar
Molecular Weight	39,948
Specific volume @ 20°C & 101,325 kPa	603,7 ml/g
Relative density of gas @ 101,325 kPa (Air=1)	1,380
Colour	None
Taste	None
Odour	None
<b>Carbon Dioxide</b>	
Chemical Symbol	CO2
Molecular Weight	44,011
Specific volume @ 20°C & 101,325 kPa	547 ml/g
Relative density of gas @ 101,325 kPa (Air=1)	1,53
Colour	None
Taste	Acidic
Odour	None

## 10 STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	The dilution of the oxygen concentration in the atmosphere to levels which cannot support life. Never use cylinders as rollers or supports, or for any other purpose than the storing of Argon+Co2 gases. Never expose the cylinders to excessive heat, as this may cause sufficient build-up of pressure to rupture the cylinders.
<b>Incompatible materials</b>	As dry Argon+Co2 gases are inert, they may be contained in systems constructed of any of the common metals which have been designed to safely withstand the pressures involved.
<b>Hazardous</b>	No known effect.
<b>Decomposition Products</b>	

## 11 TOXICOLOGICAL INFORMATION

Acute Toxicity	TLV 5000 vpm (CO2)
Skin & eye contact	No known effect
Chronic Toxicity	No known effect
Carcinogenicity	No known effect
Mutagenicity	No known effect
Reproductive Hazards	No known effect
For further information see Section 3. Adverse Health Effects	

## 12 ECOLOGICAL INFORMATION

The Argon+Co2 gases are heavier than air and can cause pockets of oxygen-depleted atmosphere in low-lying areas. They do not pose a hazard to the ecology.

## 13 DISPOSAL CONSIDERATIONS

<b>Disposal Methods</b>	Small amounts may be blown to the atmosphere under controlled conditions. Large amounts should only be handled by the gas supplier.
<b>Disposal of packaging</b>	The disposal of containers must only be handled by the gas supplier.

## 14 TRANSPORT INFORMATION

### ROAD TRANSPORTATION



UN No.	1956
ERG No	121
Hazchem warning	2C Non-flammable gas

### SEA TRANSPORTATION

IMDG	1956
Class	2.2
Label	Non-flammable gas

### AIR TRANSPORTATION

ICAO/IATA Code	1956
Class	2.2
Packaging instructions	
- Cargo	200
- Passenger	200
Maximum quantity allowed	
- Cargo	150 kg
- Passenger	75 kg