# Material Safety Data Sheet: Argonite

**BS ISO 14520 (2000) Designated: IG-55**

Unit 14, The Homeground, Buckingham Industrial Park, Buckingham. MK18 1UH
**Tel: 0870 4422 644 Fax: 0870 4422 645 Email:** info@fireprosystems.co.uk

## 1 Identification of the substance/preparation and of the company.

**Designated Name:** IG-55
**Product Name:** Argonite
**Chemical Formula:** $N_2$ / Ar
**Company Identification**: Air Products PLC, Hersham Place, Molesey Road, Walton-on-Thames, Surrey. KT12 4RZ
**Emergency phone Number:** 0500 020202

## 2 Composition/Information on Ingredients

**Substance/Preparation**: Preparation.
**Components/Impurities:** Contains no other components or impurities which will influence the classification of the product.
**EEC Nr (from 'EINECS'):** Not applicable for preparations.
**Specifications:**
►**Argonite:** 50% $N_2$ in Ar mixture within 5% of nominal. $H_2O \leq 10$ ppm, $O_2 \leq 10$ ppm in base components.

## 3 Hazards Identification

**Hazards Identification:** In high concentrations may cause asphyxiation. Compressed gas.

## 4 First Aid Measures

**Inhalation:** In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Seek medical assistance. Apply artificial respiration if breathing has stopped.
**Skin/eye contact:** Compressed gas directed at the skin can enter the body through small wounds or even penetrate the skin, causing serious or fatal injuries. Seek medical advice immediately.
**Ingestion:** Ingestion is not considered a potential route of exposure.

## 5 Fire Fighting Measures

**Specific Hazards:** Exposure to fire may cause containers to rupture/explode. Call the fire service. Non flammable.
**Hazardous combustion products:** None
**Suitable extinguishing media:** All known extinguishants can be used.
**Specific methods:** If possible stop flow of product. Move container away or cool with water from a protected position.
**Special protective equipment for fire fighters:** In confined spaces use self-contained breathing apparatus.

## 6 Accidental Release Measures

**Personal precautions:** Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.

**Environmental Precautions**: Provided it is safe to do so, try to stop release. Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.
**Clean up methods:** Ventilate area.

## 7 Handling and Storage

**Handling and storage:** Backflow of any contaminating substance into container must be prevented. Use only equipment which is specified as suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Compressed gas cylinders are heavy and contain considerable stored energy. Use suitable equipment and handle with appropriate caution. Refer to suppliers container handling instructions for further information. Keep container below 50 $^{o}$C in a well ventilated place.

## 8 Exposure Control/Personal Protection

**Exposure limit value – TLV:** No TLV specified, but atmosphere must have a minimum 18% free oxygen
**Personal protection:** Ensure adequate air ventilation.

## 9 Physical And Chemical Properties

**Molecular weight:** 33.95
**Melting point:** -199.7 $^{o}$C
**Boiling points:** -190.1 $^{o}$C at 1.013 bar
**Critical temperature:** -134.7$^{o}$C
**Relative density, gas:** Heavier than air.
**Relative density liquid:** N/A
**Vapour pressure 20 $^{o}$C:** N/A
**Solubility mg/l water:** Negligible
**Appearance/ Colour:** Colourless gas
**Odour:** No odour warning properties.
**Auto ignition temperature:** Not applicable
**Flammability Range:** Non Flammable.
**Other data:** Vapour is heavier than air. May accumulate in confined spaces, particularly at or below ground level.

## 10 Stability And Reactivity

**Stability and reactivity:** Stable under normal conditions.

## 11 Toxicological Information

**General:** No toxicological effects from this product.
**LC50 / 1h (ppm):** No acute toxicity.

## 12 Ecological Information

**General:** No ecological damage is caused by this product. Nitrogen and Argon are natural components of air, Nitrogen constituting approximately 78% and Argon approximately 0.9 % of the earths atmosphere.

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## 13 Disposal Considerations

**General:** To atmosphere in a well ventilated area. Consider noise and pressure hazards. Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

## 14 Transport Information

**UN Nr:** 1956 or 1981
**Class/Div:** 2.2
**ADR/RID Item Nr:** 2. 1 A
**Labelling ADR:** Non flammable non toxic gas
**IMDG page:** 2141
**Other transport information:** Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an emergency. Before transporting product containers ensure:
►cylinder valve is closed and not leaking
►valve protection device is correctly fitted
►adequate ventilation.
►compliance with applicable regulations

## 15 Regulatory Information

**Number in Annex I of Dir 67/548:** Not applicable for preparations.
**EC Classification:** Not classified as dangerous substance
**EC Labbelling:**
►**Symbols:** Non-flammable non toxic gas.
►**Risk Phrases:** Asphyxiant in high concentrations.
►**Safety phrases:** Do not breathe the gas. Keep container in well ventilated place.

## 16 Other Information

The hazard of asphyxiation is often overlooked and must be stressed during operator training.
Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
Details given in this document are believed to be correct at the time. Whilst great care has been taken in the preparation of this information, no liability for injury or damage or non-compliance with any legislation or directive arising from its use can be accepted.
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