

# APPENDIX A

## ARGONITE® SAFETY DATA

### A-1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

- MSDS No.: Argonite®
- Product Name: Argonite
- Chemical Formula: N<sub>2</sub> / Ar
- Company Identification: Local filling station
- Emergency Phone Numbers: Local filling station

#### A-1.1 COMPOSITION/INFORMATION ON INGREDIENTS

- Substance/Preparation:
  - Preparation
- Components/Impurities:
  - Contains no components or impurities which will influence the classification of the product
- CAS No.
  - N/A
- EEC No.
  - N/A
- Argonite Specifications:
  - Mixture of 50% to 52% N<sub>2</sub> and 48% to 50% Ar.
  - H<sub>2</sub>O < 10ppm O<sub>2</sub> < 10ppm in base components.

### A-2 HAZARDS IDENTIFICATION

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

**A-3 FIRST AID MEASURES**

- Inhalation:
  - May cause asphyxiation at high concentrations. Symptoms may include loss of mobility/ consciousness. Victim may not be aware of asphyxiation.
  - Wearing self-contained breathing apparatus, remove victim to an uncontaminated area. Keep victim warm and at rest. 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 can even penetrate the skin, causing serious or fatal injuries. Seek medical advice immediately.
- Ingestion:
  - Ingestion is not considered a potential route of exposure.

**A-4 FIRE FIGHTING MEASURES**

- Specific Hazards:
  - Exposure to fire may cause containers to rupture/explode. Call the Fire Department
  - 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.

**A-5 ACCIDENTAL RELEASE MEASURES**

- Personal precautions
  - Evacuate area.
  - Use self-contained breathing apparatus when entering area unless atmosphere is proved safe.
  - Ensure adequate air ventilation.
- Environmental precautions:
  - Provided it is safe to do so, try to stop release.
  - Prevent entry to sewers, basements, and workpits or any place where accumulation can be dangerous.
- Clean up methods:
  - Ventilate area.

**A-6 HANDLING AND STORAGE**

- Handling and Storage:
  - Backflow of any contaminating substance into container must be prevented.
  - Use only equipment that is specified as suitable for this product, its supply pressure and temperature. Contact your 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.
  - Keep containers below 122°F (50°C) in a well-ventilated place.

**A-7 EXPOSURE CONTROLS/PERSONAL PROTECTION**

- Exposure Limit Value, ELV
  - No ELV specified, but atmosphere must have a minimum 18% free oxygen
- Personal Protection
  - Ensure adequate air ventilation.

**A-8 PHYSICAL AND CHEMICAL PROPERTIES**

- Molecular weight: 33.95
- Melting point: -327.46°F (-199.7°C)
- Boiling point: -310.18°F (-190.1°C)
- Critical temperature: -210.46°F (-134.7°C)
- Relative density gas: Heavier than air
- Relative density liquid: N/A

## Argonite® Engineered Fire Suppression System

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- Vapor pressure 68°F (20°C): N/A
- Solubility in water: Negligible
- Appearance/color: Colorless gas
- Odor: No odor warning properties
- Auto ignition temperature: Not applicable
- Flammability range: Non flammable
- Other data: Vapor is heavier than air. May accumulate in confined spaces, particularly at or below ground level.

### **A-9 STABILITY AND REACTIVITY**

- Stability and Reactivity
  - Stable under normal conditions.

### **A-10 TOXICOLOGICAL INFORMATION**

- General
  - No toxicological effects from this product.
- LC50/ ih (ppm)
  - No acute toxicity

### **A-11 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 earth's atmosphere.

### **A-12 DISPOSAL CONSIDERATIONS**

- General
  - To atmosphere in well ventilated area. Consider noise and pressure hazards. Do not discharge into any place where its accumulation could be dangerous.
  - Contact your Kidde Fire Systems' supplier if guidance is required.

**A-13 TRANSPORT INFORMATION**

- UN No.: 1981
- Class/Div. 2.2
- Emergency Action Code: None specified
- ADR/RID ITEM No. 1 2.1a
- IMDG page 2141
- IMO EMS 2 - 04
- ADR/RID Hazard No. Not specified
- Labelling ADR Non flammable non-toxic gas.
- 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 an emergency.
  - Before transporting product containers ensure:
    - Cylinder valve is closed and not leaking
    - Valve outlet cap or plug (where provided) is correctly fitted
    - Adequate ventilation
    - Compliance with applicable regulations.

**A-14 REGULATORY INFORMATION**

- Number in annex 1 of Dir. 67/548
  - Not included in Annex 1.
- EC Classification
  - Not classified as a dangerous substance.
- EC Labelling (Symbols, R and S phrases)
  - Symbols:  
Compressed gas.
  - Risk Phrases:  
Asphyxiate in high concentrations.
  - Safety Phrases:  
Do not breathe the gas. Keep containers in a well-ventilated place.

**A-15 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 in this document are believed to be correct at present. While great care has been taken in the preparation of this information, no liability for injury, damage or non-compliance with any legislation or directive arising from its use can be accepted.

This sheet does not constitute or substitute for the user's own assessment of workplace risk as required by other health and safety legislation.