1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name: **Pureshield Argon**

Chemical formula: **Ar**

Company identification: see end of page 2

Emergency phone Nos: see end of page 2

2 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance/Preparation</th>
<th>Components/Contains no other components or impurities which will influence the classification of the product.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Nr</td>
<td>7440-37-1</td>
</tr>
<tr>
<td>EEC Nr (From EINECS)</td>
<td>231-147-0</td>
</tr>
<tr>
<td>Specification</td>
<td>99.998% minimum</td>
</tr>
</tbody>
</table>

3 HAZARDS IDENTIFICATION

Compressed gas. In high concentrations may cause asphyxiation. Not classified as a dangerous substance.

4 FIRST AID MEASURES

Inhalation: In high concentrations may cause asphyxiation and death. 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. Call a doctor. Apply artificial respiration if breathing stopped.

Ingestion: Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards: Exposure to fire may cause containers to rupture/explose. Inform Fire Brigade. Non-flammable.

Hazardous combustion products: None.

Suitable extinguishing media: All known extinguishers can be used.

Specific methods: If possible, stop flow of product. Move away from container and cool with water from a protected position.

Special protective equipment for fire fighters: In confined space 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 ventilation. Post warning notices.

Environmental precautions: Try to stop release. Prevent from entering sewers, basements and worksites, or any place where its accumulation can be dangerous.

Clean up methods: Ventilate area.

7 HANDLING AND STORAGE

Seek back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact BOC for details. Refer to BOC container handling instructions. Keep container below 50°C in a well-ventilated place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection: Ensure adequate ventilation.

9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular weight</td>
<td>40</td>
</tr>
<tr>
<td>Melting point</td>
<td>-189°C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>-186°C</td>
</tr>
<tr>
<td>Critical temperature</td>
<td>-122°C</td>
</tr>
<tr>
<td>Relative density, gas</td>
<td>1.38 (air=1)</td>
</tr>
<tr>
<td>Relative density, liquid</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>20°C</td>
<td>61 mg/l</td>
</tr>
<tr>
<td>Appearance/Colour</td>
<td>Colourless gas</td>
</tr>
<tr>
<td>Odour</td>
<td>Gas/Vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level. Will displace oxygen where ventilation is at a high point only.</td>
</tr>
</tbody>
</table>

10 STABILITY AND REACTIVITY

Stability and reactivity: Stable under normal conditions.

11 TOXICOLOGICAL INFORMATION

General: No known toxicological effects from this product.

12 ECOLOGICAL INFORMATION

General: No ecological damage caused by this product.
13 DISPOSAL CONSIDERATIONS

General
Vent to atmosphere in a well ventilated place.
Do not discharge into any place where its accumulation could be dangerous. Contact BOC if guidance is required.

14 TRANSPORT INFORMATION

Proper Shipping Name
Argon, compressed

UN Nr
1006

Class
2.2

ADR/RID

Classification Code
1A

ADR/RID Hazard Nr
20

Labelling ADR
Label 2.2: 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 the event of an accident or an emergency.

Before transporting product containers ensure that they are firmly secured and:
– cylinder valve is closed and not leaking.
– valve outlet cap nut or plug (where provided) is correctly fitted.
– valve protection device (where provided) is correctly fitted
– adequate ventilation.
– compliance with applicable regulations.

15 REGULATORY INFORMATION

Number in Annex I of Dir 67/548
Not included in Annex I.

EC Classification
Not classified as dangerous substance.

Labelling of cylinders
Label 2.2: non flammable non toxic gas.

16 OTHER INFORMATION

Ensure all national/local regulations are observed.
Asphyxiant in high concentrations.

Keep container in well ventilated place.

Do not breathe the gas.
The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Users of breathing apparatus must be trained.
Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Although the shielding gas alone does not exhibit toxic/harmful effects, the fumes generated from a welding process can be hazardous to health.

Always leak check cylinders when first collected, delivered or used, using an approved leak detection fluid.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.
Details given in this document are believed to be correct at the time of going to press.
Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.
For further safety information please refer to “Safe Under Pressure” and “Guidance for carriage of gas cylinders on vehicles”, both of which are available from your local BOC outlet.

NOTE: Not all sizes of cylinders and MCPs are available at all outlets.
OUTLET CONNECTION: 5/8” BSP female right hand cone recessed.

* Offshore customers only.

<table>
<thead>
<tr>
<th>CYLINDER CHARACTERISTICS</th>
<th>Cylinder size</th>
<th>Maximum Filled Pressure at 15˚C (bar)</th>
<th>Approx. Gross Cylinder weight (kg)</th>
<th>Manifolded Cylinder Filled Pressure at 15˚C (bar)</th>
<th>Approx. Gross Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>230</td>
<td>940 x 140</td>
<td>19</td>
<td>WW (15 x W)</td>
<td>1500</td>
</tr>
<tr>
<td>Y</td>
<td>230</td>
<td>950 x 200</td>
<td>40</td>
<td>ZW* (20 x W)</td>
<td>2300</td>
</tr>
<tr>
<td>W</td>
<td>230</td>
<td>1460 x 230</td>
<td>85</td>
<td>YW* (16 x W)</td>
<td>2300</td>
</tr>
</tbody>
</table>

NOTE: Not all sizes of cylinders and MCPs are available at all outlets.
OUTLET CONNECTION: 5/8” BSP female right hand cone recessed.

All BOC Safety Data Sheets are available online at www.boc.com/uk/sds

For product and safety enquiries please phone

In the United Kingdom:
0800 111 333

BOC Customer Service Centre
Priestley Road, Worsley
Manchester M28 2UT
Fax: 0800 111 555

In the Republic of Ireland:
1850 333 435

BOC Ireland
P.O. Box 201
Bluebell, Dublin 12
Fax: 01 409 1801

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