

Specshield

11% He, 4% H₂, Ar

PRODUCT: SPECSHIELD 11% He, 4% H₂, Ar MSDS NR: 302-15-0007 BOC VERSION: 1.03 DATE: 14/12/2004 PAGE: 1/1
FORMERLY: HELISHIELD H4

1 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY

Product name Specshield 11% He, 4% H₂, Ar
Company identification see end of page 2
Emergency phone Nos see end of page 2

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation Preparation
Components/Impurities Contains the following components:
4% Hydrogen {F+; R12}
{EINECS No. 215-605-7}
/11% Helium
{EINECS No. 231-168-5}
/85% Argon
{EINECS No. 231-147-0}
EEC Nr (from EINECS) Not applicable for preparations

3 HAZARDS IDENTIFICATION

Hazards identification Extremely flammable
Compressed gas.

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/explode. Inform Fire Brigade.
Hazardous combustion products None.
Suitable extinguishing media All known extinguishants can be used.
Specific methods If possible, stop flow of product. Move away from container and cool with water from a protected position. Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.
Special protective equipment for fire fighters In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate area. Ensure adequate air ventilation. Eliminate ignition sources. Post warning notice (including no smoking).
Leak not ignited Extinguish all sources of ignition in the immediate area. Close the cylinder valve. If necessary tighten the gland nut.
If leak continues, evacuate the area, and avoiding sources of ignition and minimising personal risk move the leaking cylinder to a safe outside area. Notify BOC.
Post warning notices and prevent access to the area.
Do not attempt to tighten the cylinder valve in the body of the cylinder. Do not tamper with the safety devices.
Leak Ignited Raise fire alarm.
Close cylinder valve if safe to do so. Call fire brigade. Evacuate the area. If possible apply copious quantities of water from a hose to the affected cylinder(s) from a protected position until the cylinder(s) are cold.
Do not move cylinders until cold.
Environmental precautions Try to stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Clean up methods Ventilate area.

7 HANDLING AND STORAGE

Handling and storage Ensure equipment is adequately earthed. Suck back of water into the container must be prevented. Purge air from system before introducing gas. 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 if in doubt. Keep away from heat and ignition sources (including static discharges). Segregate from oxidant gases and other oxidants in store. 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. Do not smoke while handling product.

SAFETY DATA SHEET

9 PHYSICAL AND CHEMICAL PROPERTIES

Relative density, gas	Heavier than air.
Solubility mg/l water	Not known.
Appearance/Colour	Colourless gas
Odour	None
Other data	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.

10 STABILITY AND REACTIVITY

Stability and reactivity	Can form explosive mixture with air. May react violently with oxidants.
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11 TOXICOLOGICAL INFORMATION

General	No known toxicological effects from this product.
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12 ECOLOGICAL INFORMATION

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

General	Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flash back arrestor. Do not discharge into any place where its accumulation could be dangerous. Contact BOC if guidance is required.
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14 TRANSPORT INFORMATION

Proper Shipping Name	Compressed Gas, Flammable N.O.S. (Hydrogen, Argon) 1954
UN Nr	1954
Class/Div	2.1
ADR/RID Classification Code	1F
ADR/RID Hazard Nr	23
Labelling ADR	Label 3: flammable 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 applicable for preparations
EC Classification	F+; R12.
Labelling of cylinders	
- Symbols	Label 3: flammable gas.
- Risk phrases	R12 Extremely flammable.
- Safety phrases	S9 Keep container in well ventilated place. S16 Keep away from ignition sources – No smoking. S33 Take precautionary measures against static discharges.

16 OTHER INFORMATION

Ensure all national/local regulations are observed.

Ensure operators understand the flammability hazard.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Users of breathing apparatus must be trained.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives into their national laws.

Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Although this 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.

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 available from your local BOC outlet.

Cylinder Size	Approx Dimensions Including valve and guard where supplied (mm)	Approx Full Cylinder Weight (Kg)	Maximum Filled Pressure 15°C (Bar)	Manifold Cylinder Pallets (MCP)	Approx. Dimensions Including Cylinders (mm)	Max Gross Weight(KG)	Maximum Filled Pressure 15°C (Bar)
N	1460 X 230	82	200	WN (15 X N)	1290 X 1810 X 840	1500	200



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SFT/007287/APUK/0205/1M