

## 1 to 2.9% hydrogen in argon

3636



2.2 : Non-flammable, non-toxic gases

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

Trade name : 1 to 2.9% hydrogen in argon  
 SDS Nr : 3636  
 Company identification : Energas Ltd.  
 Westmorland Street, Hull HU2 0HX,  
 United Kingdom  
 Emergency telephone number : 01482 329333

### SECTION 3. Composition/information on ingredients

Mixture.

Components : This product is not hazardous but contains hazardous components.

Substance name	Contents	CAS No EC No Index No Registration no	Classification(DSD)	Classification(CLP)
Hydrogen	: 2.9 %	1333-74-0 215-605-7 001-001-00-9 * 1	F+; R12	Flam. Gas 1 (H220) Press. Gas Compressed (H280)
Argon	: 97.1 %	7440-37-1 231-147-0 ----- * 1	Not classified (DSD)	Press. Gas Compressed (H280)

### SECTION 4. First aid measures

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. Call a doctor. Apply artificial respiration if breathing stopped.
- Ingestion : Ingestion is not considered a potential route of exposure.

### SECTION 5. Firefighting measures

Extinguishing media

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

**1 to 2.9% hydrogen in argon****3636****SECTION 5. Firefighting measures (continued)**

**Flammable class** : Non flammable.

**SECTION 6. Accidental release measures**

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

**SECTION 7. Handling and storage**

**Handling** : Open valve slowly to avoid pressure shock.  
Suck 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 your gas supplier if in doubt.  
Refer to supplier's container handling instructions.

**Storage** : Keep container below 50°C in a well ventilated place.

**SECTION 8. Exposure controls/personal protection****8.2. Exposure controls**

**Personal protection** : Ensure adequate ventilation.

**SECTION 9. Physical and chemical properties**

**Physical state at 20°C / 101.3kPa** : Compressed gas.

**Colour** : Colourless.

**Odour** : Odourless.

**Relative density, gas (air=1)** : Heavier than air.

**Solubility in water [mg/l]** : No reliable data available.

**Other data** : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

**SECTION 10. Stability and reactivity**

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

## 1 to 2.9% hydrogen in argon

**3636**

### SECTION 11. Toxicological information

**Toxicity information** : No known toxicological effects from this product.

### SECTION 12. Ecological information

**Ecological effects information** : No known ecological damage caused by this product.

**Environmental precautions** : Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

**Effect on ozone layer** : None.

### SECTION 13. Disposal considerations

**General** : Do not discharge into any place where its accumulation could be dangerous.  
Contact supplier if guidance is required.

**Disposal method** : Consult supplier for specific recommendations.

### SECTION 14. Transport information

**UN number** : 1956

**H.I. nr** : 20

**UN proper shipping name** : COMPRESSED GAS, N.O.S.

**Transport hazard class(es)** : 2

**Classification code** : 1 A

**Labelling ADR** : 2.2 : Non-flammable, non-toxic gases

**ADR/RID**

**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 containers are firmly secured.  
- Ensure cylinder valve is closed and not leaking.  
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.  
- Ensure valve protection device (where provided) is correctly fitted.  
- Ensure there is adequate ventilation.  
- Compliance with applicable regulations.

### SECTION 16. Other information

**Training advice** : Asphyxiant in high concentrations.  
Keep container in a well-ventilated place.  
Do not breathe the gas.  
The hazard of asphyxiation is often overlooked and must be stressed during operator training.  
Receptacle under pressure.  
Ensure all national/local regulations are observed.

**Note** : This Safety Data Sheet has been established in accordance with the applicable European Union legislation.

**DISCLAIMER OF LIABILITY** : 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 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.

**End of document**