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First edition: September 2013

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# ARGON in non-refillable gas cylinders

ICO.SD.002.e, Issue 05

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

Product identifier	
Trade name	: Argon in non-refillable gas cylinders
Safety data sheet no.	: ICO.SD.002.e.05
Chemical description of gas	: Argon CAS-No.: 7440-37-1 EC no.: 231-147-0 Index no.:
Chemical formula	: Ar
UN number	: UN 1006
REACH registration number	: Argon is listed in Annex IV/V of regulation no. EC 1907/2006 (REACH). Exempted from registration.
Usage	: For various industrial applications Perform risk assessment prior to use.
Company name	: iSi Components GmbH Website: www.isi.com/components Kürschnergasse 6A E-mail: ico@isi.com A-1217 Vienna, Austria Tel.: +43 1 25099-803
Emergency telephone number	: Poison information hotline Tel.: +43 1 406 43 43

#### 2 Hazards identification

Classification of the substance or mixture	
Classification according to EC 1272/2008 (CLP, GHS)	: Gases under pressure - Compressed gas Contains gas under pressure; may explode if heated.
Classification according to EC 67/548 and EC 1999/45	: Not classified as hazardous to health. No EC labeling required.
Label elements	
Labelling regulation EC 1272/2008 (CLP):	
Hazard pictograms	$\diamond$
<ul> <li>Signal word</li> <li>Hazard statements</li> <li>Precautionary statements</li> </ul>	<ul> <li>Warning</li> <li>H280: Contains gas under pressure; may explode if heated.</li> <li>P102: Keep out of reach of children.</li> <li>P403: Keep in a well-ventilated place.</li> <li>P410: Protect from direct sunlight.</li> </ul>
Other hazards	
Other hazards	: May cause asphyxiation in high concentrations.



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3	Composition/information on ingredients		
	Substance/Preparation	: Substance	
	Substance name Argon	CAS no.         EC no.         Index no.         Registration no.         Classification           7440-37-1         231-147-0          See NOTE          Press. gas (H280)	
	Does not contain any other compo	onents or impurities which could affect the classification of this product.	
	Note: Listed in Appendix IV/V RE For full text of R-sets, see	ACH, exempted from registration. Section 16.	
1	First-aid measures		
	Inhalation	<ul> <li>High concentrations may cause asphyxiation. Symptoms can include loss of mobility/ consciousness. Victim may not be aware of asphyxiation. Immediately remove victim to uncontaminated area. The victim should be made to wear respiratory equipment. Keep victim warm and rested. Call a doctor. Attempt artificial respiration if the victim stops breathing.</li> </ul>	
	Contact with skin/eye	: No adverse effects are expected from this product.	
	Ingestion	: Ingestion is not seen as a possible method of exposure.	
5	Fire-fighting measures		
	Specific risks	: Non flammable Exposure to fire may cause cylinder to burst/explode.	
	Hazardous combustion Products	: None.	
	Extinguishing media - Suitable extinguishing agent	: All known extinguishants can be used.	
	Specific methods	: Move away from cylinder and cool with water from a safe position.	
	Special protective equipment for fire fighters	or : In confined spaces use self-contained breathing apparatus.	
6	Accidental release measures		
	Personnel-related precautions	: Ensure adequate ventilation.	

productione	
Environmental precautions	: Attempt to stop gas release. Prevent from entering sewer systems, basements, work pits or any other areas where accumulation could be hazardous.
Cleaning up methods	: Ventilate area.



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7 Handling and storage	
Handling	<ul> <li>Only use equipment suitable for this product and its pressure and temperature specified. If in doubt, consult iSi Components GmbH.</li> <li>Never use direct flame or electrical heating devices to raise the pressure of a cylinder.</li> <li>Never attempt to refill an empty cylinder.</li> <li>Never attempt to transfer gases from one cylinder to another.</li> <li>Do not use cylinder as roller or support, or for any other purpose than to contain the gas as supplied.</li> <li>Do not subject cylinder to mechanical shocks which may cause damage to their integrity.</li> </ul>
Storage	<ul> <li>Keep out of reach of children.</li> <li>Store cylinder in a well-ventilated place at less than 65°C.</li> <li>Store cylinder in a location free from risk of fire and away from sources of heat and ignition.</li> <li>Periodically check cylinder for general conditions and leakage.</li> <li>Do not store cylinder in conditions likely to encourage corrosion.</li> </ul>
8 Exposure controls/personal pro	otection
Personal protection	: Ensure adequate ventilation. Protect eyes, face and skin from liquid splashes. Wearing of protective gloves is recommended.
Occupational exposure limits	: None
9 Physical and chemical character	eristics
Physical state at 20°C Colour Odour Molecular weight Melting point [°C] Boiling point [°C] Critical temperature [°C] Vapour pressure at 20°C Relative density, gas (air=1) Solubility in water [mg/l] Flash point [vol.% in air] Other information	<ul> <li>Gaseous.</li> <li>Colourless.</li> <li>Odourless. No odour warning properties.</li> <li>40 <ul> <li>-189</li> <li>-186</li> <li>-122</li> <li>NA</li> <li>1.38</li> <li>61</li> <li>NA</li> </ul> </li> <li>Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.</li> </ul>



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10	Stability and reactivity	
	Hazardous decomposition products	: None.
	Chemical stability	: Stable under normal conditions.
11	Toxicological information	
	Toxicological information	: There are no toxic effects known of this product.
40		
12	Ecological information	
	Ecological effects information	: No ecological damages caused from this product.
13	Disposable considerations	
	General	<ul> <li>Do not discharge into any place where its accumulation could be dangerous.</li> <li>Release into the atmosphere in a well-ventilated place.</li> <li>Avoid releasing large quantities into the atmosphere.</li> <li>Consult your supplier if you require advice.</li> </ul>
	Disposal methods	<ul> <li>Dispose of emptied cylinders only.</li> <li>Cylinders are made of recyclable steel and hence a valuable resource.</li> <li>Emptied cylinders should therefore always be recycled.</li> <li>Adhere to local waste regulations when disposing of emptied cylinders.</li> <li>Never dispose of cylinders in an uncontrolled manner (e.g. dumping at sea).</li> </ul>
14	Transport information	
	Land transport	: In accordance with the requirements set out in relevant local regulations (e.g. for Europe, the current issue of the ADR applies).
	Sea transport	: In accordance with the requirements set out in the current issue of the IMO-IMDG code.
	Air transport	: In accordance with the requirements set out in the current issue of the IATA, Dangerous Goods Regulations.
15	Regulatory information	
	Safety, health and environmental regulations/ legislation specific for the substance or the mixture	: All national/local regulations apply.
	Seveso regulations 96/82/EC	: Not covered.



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#### 16 Other information

May cause asphyxiation in high concentrations. Keep cylinder in a well-ventilated place. Do not inhale the gas. The hazard of asphyxiation is often overlooked and must be stressed during operator training.

This safety data sheet has been produced in accordance with the applicable European directives. It applies to all countries which have adopted these directives as part of their national legislation.

#### DISCLAIMER OF LIABILITY

The information contained in this document is based on the latest knowledge and does not constitute a contractual assurance of product qualities. Before the product can be used in any new process or trial, careful tests of the material compliance and safety should be carried out.

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