

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

1.1	Product identifier	
	IUPAC Nomenclature	ARGON -- 02656 04025
	UFI	N/A
	CAS number	See paragraph 3.1
	EINECS number	See paragraph 3.1
	Index number	See paragraph 3.1
	Registration number	Indicated in the list of substances of Annex IV / V of REACH, exempt from the registration obligation.
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Relevant identified uses	Technical gas - industrial use. Welding application
	Uses advised against	All those not identified as relevant.
1.3	Details of the supplier of the safety data sheet	
	Supplier	SIP Industrial Products Ltd SIP Machinery Europe Ltd
	Street address	Gelders Hall Road Quayside Business Park
	Country	Shepshed Leicestershire LE129NH Dundalk
	Telephone number	+44 01509 500400 County Louth Republic of Ireland
	Fax	+44 01509 500456
	e-mail address	customerservice @ sip-group.com
1.4	Emergency telephone number	
	+44 01509 500400	(working hours)

### Section 2: Hazards identification

2.1	Classification of the substance or mixture	
	Classification according to Regulation (EC) No 1272/2008 [CLP]	
	Physical hazards	Gas under pressure: Compressed gas H280
2.2	Label elements	
	Classification according to Regulation (EC) No 1272/2008 [CLP]	
	Hazard pictogram(s)	 GHS04
	Signal word	Warning
	Hazard statement(s)	H280: Contains gas under pressure; may explode if heated
	Precautionary statements - general	P102: Keep out of reach of children.
	Precautionary statements - storage	P410 + P403: Protect from sunlight. Store in a well-ventilated place
2.3	Other hazards	
	Asphyxiant in high concentrations. Do not expose to temperatures exceeding 50°C/ 122°F	

### Section 3: composition/information on ingredients

3.1	Substances						
	<b>ARGON</b>						
	Quantity	C.A.S	EC n.	Hazard class	Pictogram	Danger codes	Registration N°
	100%	7440-37-1	231-147-0	Press. Gas (Comp.)		H280	exempt to ex annex IV REACH

### Section 4: First aid measures

4.1	Description of first aid measures	
	Inhalation	Move the victim from the place of exposure to a ventilated area. Do not give hands anything orally to an unconscious person.
	Eyes contact	Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Perform artificial respiration if breathing stopped.
	Ingestion	No adverse effects are expected from this product
	Skin contact	Is not considered a potential route of exposure
		No adverse effects are expected from this product.

- 4.2 Most important symptoms and effects, both acute and delayed  
In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victims may not be aware of asphyxiation.  
Refer to section 11.
- 4.3 Indication of any immediate medical attention and special treatment needed  
For any doubt or persistent symptoms, call a doctor.

### Section 5: Firefighting measures

- 5.1 Extinguishing media  
Suitable extinguishing media Water spray or fog  
Unsuitable extinguishing media Do not use water jet to extinguish
- 5.2 Special hazards arising from the substance or mixture  
Specific hazards: Exposure to fire may cause cylinder (s) to rupture or explode.  
Hazardous Combustion Products None (a).
- 5.3 Advice for firefighters  
Specific methods:  
Use fire control measures appropriate for the surrounding fire.  
Exposure to fire and heat radiation may cause gas cylinders to rupture.  
Cool endangered cylinders with water spray jet from a protected position.  
Prevent water used in emergency cases from entering sewers and drainage systems.  
If possible, stop flow of product.  
Use water spray or fog to knock down fire fumes if possible.  
Move containers away from the fire area if this can be done without risk.
- Special protective equipment for fire fighters:  
Use self Contained Breathing Apparatus  
Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.  
Standard EN137 – Self contained open circuit compressed air breathing apparatus with full face mask.  
Standard EN 469 – Protective clothing for firefighters. Standard EN 659 - Protective gloves for firefighters.

### Section 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures  
Try to stop release.  
Evacuate area.  
Monitor concentration of released product.  
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.  
Ensure adequate air ventilation.  
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.  
Act in accordance with local emergency plan.  
Stay upwind.
- 6.2 Environmental precautions  
Try to stop release.
- 6.3 Methods and material for containment and cleaning up  
Ventilate the area.  
Take the cylinder outdoors to an isolated area and empty it into the atmosphere.
- 6.4 Reference to other sections  
See section 8 and 13.

### Section 7: Handling and storage

- 7.1 Precautions for safe handling  
Safe use of the product:  
The product must be handled in accordance with good industrial hygiene and safety procedures.  
Only experienced and properly instructed persons should handle gases under pressure.  
Do not smoke while handling product.  
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.  
Do not breathe gas.

Safe handling of the gas cylinder:

Avoid release of product into work area.  
Refer to supplier's container handling instructions.  
Do not allow backfeed into the container.  
Protect cylinders from physical damage; do not drag, roll, slide or drop.  
When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.  
If user experiences any difficulty operating valve discontinue use and contact supplier.  
Never attempt to repair or modify container valves.  
Damaged valves should be reported immediately to the supplier.  
Keep container valve outlets clean and free from contaminants particularly oil and water.  
Never attempt to transfer gases from one cylinder to another.  
Never use direct flame or electrical heating devices to raise the pressure of a container.  
Do not remove or deface labels provided by the supplier for the identification of the content of the container.  
Containers should be stored in the vertical position and properly secured to prevent them from falling over.

**7.2 Conditions for safe storage, including any incompatibilities**

Observe all regulations and local requirements regarding storage of containers.  
Cylinders should not be stored in conditions likely to encourage corrosion.  
Store cylinders in location free from fire risk and away from sources of heat and ignition.  
Keep cylinders below 50°C in a well ventilated place.  
Keep away from combustible materials.

**7.3 Specific end use(s).**

No additional information.

**Section 8: Exposure controls/personal protection**

**8.1 Control parameters**

**E938 Argon (7440-37-1)**

**Belgio – Occupational Exposure Limits**

Local name	Argon # argon
Notes	A: la mention "A" signifie que l'agent libère un gaz ou une vapeur qui n'ont en eux-mêmes aucun effet physiologique mais peuvent diminuer le taux d'oxygène dans l'air. Lorsque le taux d'oxygène descend en dessous de 17- 18 % (vol/vol) le manque d'oxygène provoque des suffocations qu'aucun symptôme préalable n'annonce. # A: de vermelding "A" betekent dat dit agens gas of damp vrijgeeft dat of die op zich geen fysiologische werking heeft, maar het zuurstofgehalte in de lucht verlaagt. Wanneer het zuurstofgehalte daalt onder de 17-18 % (vol/vol), veroorzaakt het zuurstoftekort verstikking, die zich manifesteert zonder dat er een waarschuwing aan voorafgaat.
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018

**Irlanda – Occupational Exposure Limits**

Local name	Argon
Notes	Asphx. (Gaseous chemical substances which may not produce significant physiological effects in the exposed employee, but when present in high concentrations will act as simple asphyxiants).
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018

**Spagna – Occupational Exposure Limits**

Local name	Argòn
Notes	b (Asfixiantes simples. Ciertos gases y vapores presentes en el aire actúan desplazando al oxígeno y disminuyendo su concentración en el aire, sin efecto toxicológico. Estas sustancias no tienen un valor límite ambiental asignado y el único factor limitador de la concentración viene dado por el oxígeno disponible en el aire, que debe ser al menos del 19,5 % de O2 equivalente a nivel del mar. Este valor proporciona una cantidad adecuada de oxígeno para la mayoría de los trabajos realizados, incluyendo un margen de seguridad).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT

**Switserland– Occupational Exposure Limits**

# Safety Data Sheet

## ARGON COMPRESSED

REVISION No. 10  
DATE OF REVISION : 05/02/2024

Local name	Argon / Argon
Note	Kritische Toxizität: Asphyxie
Regulatory reference	<a href="http://www.suva.ch">www.suva.ch</a> , 01.11.2018
<b>USA- ACGIH– Occupational Exposure Limits</b>	
Local name	Argon
Commento (ACGIH)	TLV © Basis : Simplyxante Asph
Regulatory reference	ACGIH 2019

OEL (Occupational Exposure Limits)	No data available
DNEL (Derived No Effect Level)	No data available
PNECs (Predicted No Effect Concentrations)	No data available

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Provide adequate general and local exhaust ventilation.  
Systems under pressure should be regularly checked for leakages.  
Ensure exposure is below occupational exposure limits (where available).  
Oxygen detectors should be used when asphyxiating gases may be released.

#### 8.2.2 Individual protection measures, e.g. personal protective equipment

##### Eye/face protection:

Wear safety glasses with side shields.  
Standard EN 166 - Personal eye-protection - specifications.

##### Skin protection:

##### Hand protection

Wear working gloves when handling gas containers.  
Standard EN 388 - Protective gloves against mechanical risk.

##### Other

Wear safety shoes while handling containers.  
Standard EN ISO 20345 - Personal protective equipment - Safety footwear.

##### Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.  
Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres.  
Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.

##### Thermal protection

Not necessary

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state 20C/101.3kPa	Gas
Colour:	Colourless
Odour:	Odourless
Melting point/freezing point:	Minus 189C
Boiling point:	Minus 186C
Flammability:	Not flammable
Lower and upper explosion limit:	Not explosive
Flash point:	Not applicable to gases
Auto-ignition temperature:	Not Flammable
Decomposition temperature:	No data
pH:	Not applicable for gases
Kinematic viscosity:	No reliable data available
Solubility:	No data
Partition coefficient n-octanol/water:	Not applicable for gases
Vapour pressure:	Not applicable
Density and/or relative density: air=1	1.38
Relative vapour density:	Not applicable
Particle characteristics:	Not applicable for gases

### 9.2 Other information

Molar mass	40 g/mol
Critical temperature (°C)	-122 °C
Critical pressure	48.63 bar
Critical density	535.6 kg/m <sup>3</sup>

Triple point temperature	-189.34 °C
Triple point pressure	0.687 bar
Other data	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

### Section 10: Stability and reactivity

10.1	Reactivity	Inert gas. No reactivity hazard other than the effects described in sub-section below.
10.2	Chemical stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	None
10.4	Conditions to avoid	Keep away from heat/sparks/open flames/hot surfaces – No smoking
10.5	Incompatible materials	None. For additional information on compatibility refer to ISO 11114.
10.6	Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### Section 11: Toxicological information

11.1	Information on toxicological effects	
a)	Acute toxicity	no known toxicological effects from this product
b)	Skin corrosion/irritation	Based on available data, the classification criteria are not met.
c)	Serious eye damage/irritation	Based on available data, the classification criteria are not met.
d)	Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
e)	Germ cell mutagenicity	Based on available data, the classification criteria are not met.
f)	Carcinogenicity	Based on available data, the classification criteria are not met.
g)	Reproductive toxicity	Based on available data, the classification criteria are not met.
h)	STOT-single exposure	Based on available data, the classification criteria are not met.
i)	STOT-repeated exposure	Based on available data, the classification criteria are not met.
j)	Aspiration hazard	Not applicable to gases and gas mixtures.
11.2	Information on other hazards:	No information

### Section 12: Ecological information

12.1	Toxicity	
	Assessment	Classification criteria are not met
	EC50 48h - Daphnia magna [mg/l]	No data available
	EC50 72h - Algae [mg/l]	No data available
	LC50 96 h - Fish [mg/l]	No data available
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	Due to its high volatility, the product is unlikely to cause soil and groundwater pollution aquifers. Distribution in the soil is unlikely
12.5	Results of PBT and vPvB assessment	Data no available
12.6	Other adverse effects	
	Effect on the ozone layer	None
	Effect on global warming	None

### Section 13: Disposal considerations

13.1	Waste treatment methods	The gas can be discharged to the atmosphere in a well-ventilated area. Do not dump where the build-up can be dangerous.
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Cylinders are not refillable containers. In case the cylinder needs to be placed outside use, ask the manufacturer and / or distributor for information for correct disposal. The waste treatment method must always be verified by referring to composition of the waste itself, with the existing community and national standards. Contact the supplier if disposal instructions are considered necessary.

13.2 Additional information

None

### Section 14: Transport information

14.1 UN number

In accordance with ADR / RID / IMDG / IATA / ADN UN-No.  
UN 1006

14.2 UN proper shipping name

Transport by road/rail (ADR/RID)	ARGON COMPRESSED
Transport by air (ICAO-TI / IATA-DGR)	Transport by air not provided
Transport by sea (IMDG)	ARGON, COMPRESSED

14.3 Transport hazard class(es)

Labelling



2.2 : Non- flammable, non-toxic gases

**Transport by road/rail (ADR/RID)**

Class	2
Classification code	1A
Hazard identification number	20
Tunnel restriction	E – Passage forbidden through tunnels of category E

**Transport by air (ICAO-TI / IATA-DGR)**

Transport by air not provided

**Transport by sea (IMDG)**

Class / Div. (Sub.risk(s))	2.2
Emergency Schedule (EmS) - Fire	F-C
Emergency Schedule (EmS) - Spillage	S-V

14.4 Packing group

Transport by road/rail (ADR/RID)	Not applicable
Transport by air (ICAO-TI / IATA-DGR)	Transport by air not provided
Transport by sea (IMDG)	Not applicable

14.5 Environmental hazards

Transport by road/rail (ADR/RID)	Not applicable
Transport by air (ICAO-TI / IATA-DGR)	Transport by air not provided
Transport by sea (IMDG)	Not applicable

14.6 Special precautions for user

Transport by road/rail (ADR/RID)	P200
Transport by air (ICAO-TI / IATA-DGR)	Transport by air not provided
Transport by sea (IMDG)	P200
Special transport precautions	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 there is adequate ventilation. - Ensure that containers are firmly secured.

14.7 Transport in bulk according to Maritime transport in bulk according to IMO instruments

Not applicable

### Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU – Regulations

Other information, restriction and prohibition regulations:	Ensure all national/local regulations are observed
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Seveso directive 2012/18/UE:	Not covered.
<u>National Regulations</u>	
Danger class for water (WGK)	Nwg – not danger for water
N.Kenn	1348
Additional regulations, restrictions and legal requirements:	Ensure compliance with all national regulations e locals

15.2 Chemical safety assessment  
 A CSA does not need to be carried out for this product

### Section 16: Other information

Indication of changes	Revised safety data sheet in accordance with commission regulation (EU) No 2015/830.
Further information	This Safety Data Sheet has been established in accordance with the applicable European Union legislation. Classification in accordance with the procedures and calculation methods of Regulation (EC) 1272/2008 (CLP).
Abbreviations and acronyms	<p>ATE - Acute Toxicity Estimate          CLP - Classification Labelling Packaging - Regolamento (CE) N. 1272/2008          REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals - Regolamento (CE) N. 1907/2006          EINECS - European Inventory of Existing Commercial Chemical Substances          n. CAS - Chemical Abstract Service number          LC50 - Lethal Concentration 50          RMM - Risk Management Measures          PBT - Persistent, Bioaccumulative and Toxic          vPvB - very Persistent and very Bioaccumulative          STOT-SE: Specific Target Organ Toxicity-Single Exposure          CSA - Chemical Safety Assessment          EN - European Standard          ONU - Organizzazione delle Nazioni Unite          ADR - Accord européen relatif au transport international des marchandises Dangereuses par Route          IATA - International Air Transport Association          IMDG code - International Maritime Dangerous Goods code          RID - Règlement concernant le transport International ferroviaire des marchandises Dangereuses          WGK - Wassergefährdungsklassen          STOT-RE: Specific Target Organ Toxicity-Repeated Exposure</p>

#### DISCLAIMER OF LIABILITY

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