	SAFETY DATASHEET	Page : 1/10
		Revised edition n° : 10.0
		Revision date : 11/2021
Argon 98% - Hydrogen 2%		MTG....

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name	Argon 98% - Hydrogen 2%
Chemical description	Argon 98% - Hydrogen 2%
CAS N°	-
CE N°	-
Index N°	-
Registration n°	-
Chemical formula	Ar, H ₂

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Industrial and professional Test gas/Calibration gas Purge gas, diluting gas, inerting gas Use for manufacture of electronic/photovoltaic components Shield gas for welding processes Laboratory use Food applications
Uses advised against	-

1.3. Details of the supplier of the safety data sheet

Company identification	MULTIGAS Route de l'Industrie 102 CH-1564 Domdidier
Phone number	+41 (0) 26 676 94 94
E-mail address	info@multigas.ch

1.4. Emergency telephone numbers

145 (Toxicology Centre Zurich) or +41 (0) 44 251 51 51
 +41 (0) 26 676 94 94 (Multigas)


SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazards Gases under pressure : Compressed gas


H280

	SAFETY DATASHEET	Page : 2/10
		Revised edition n° : 10.0
		Revision date : 11/2021
Argon 98% - Hydrogen 2%		MTG....

For the complete H-sentences texts mentioned in that chapter, refer to Section 16

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms	
	GHS04
Signal word	Warning
Hazard statements	
H280	Contains gas under pressure; may explode if heated
Precautionary statements	
P410+P403	Protect from solar radiation. Store in a well-ventilated place

2.3. Other hazards

Asphyxiant in high concentrations

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	Concentration	Classification
Argon	(CAS-No.) 7440-37-1 (EC-No.) 231-147-0 (EC Index-No.) --- (Registration-No.)--	98%	Press. Gas (Comp.), H280
Hydrogen	(CAS-No.) 1333-74-0 (EC-No.) 215-605-7 (EC Index-No.) --- (Registration-No.)--	2%	Flam. gas 1 ;H220 Press. Gas (Comp.) ;H280

For the complete H-sentences texts mentioned in that chapter, refer to Section 16

Contains no other components or impurities which will influence the classification of the product

3.2. Mixtures

Not established

Argon 98% - Hydrogen 2%

MTG....

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	See a doctor. Show this safety data sheet to the attending physician
In case of inhalation	In case of inhalation, remove the person from the contaminated area. In case of respiratory arrest, give artificial respiration. See a doctor
In case of skin contact	No adverse effects expected
In case of eyes contact	No adverse effects expected
In case of ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. See a doctor

4.2. Most important symptoms and effects, both acute and delayed

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation
Refer to section 11

4.3. Indication of any immediate medical attention and special treatment needed

Data not available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray or water mist. Dry powder. Foam
Unsuitable extinguishing media	-

5.2. Special hazards arising from the substance or mixture

Specific hazards	Exposure to fire may cause containers to rupture/explode
Hazardous combustion products	-

5.3. Additional information

Cool endangered receptacles with water spray jet from a protected position

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, spray mists or gases
Provide adequate ventilation
Evacuate the staff to a safe place
Personal protective equipment, see section 8

Argon 98% - Hydrogen 2%
MTG....
6.2. Environmental precautions

-

6.3. Methods and material for containment and cleaning up

-

6.4. Reference to other sections

See also sections 8 and 13

SECTION 7: Handling and storage
7.1. Precautions for safe handling

See also sections 8 and 13

7.2. Conditions for safe storage, including any incompatibilities


Store in a cool place. Keep container tightly closed in a dry and well-ventilated place
Pressurized contents

7.3. Specific end use(s)

-

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Components with occupational exposure limits

Component	CAS N°	Exposure value type	Control parameter	Source
Argon	7440-37-1	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	
Hydrogen	1333-74-0	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	

	SAFETY DATASHEET	Page : 5/10
		Revised edition n° : 10.0
		Revision date : 11/2021
Argon 98% - Hydrogen 2%		MTG....

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation
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	Safety glasses recommended for handling cylinders Standard EN 166 - Personal eye protection
Skin / hand protection	Wear working gloves when handling gas containers. Standard EN 388 - Protective gloves against mechanical risk
Respiratory protection	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

8.2.3. Environmental exposure controls

-

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
• Physical state at 20°C / 101.3kPa	Gas
• Colour	Colourless.
Odour	Without
Odour threshold	-
pH	Data not available
Melting point / Freezing point	Data not available
Boiling point	Data not available
Flash point	Not applicable
Evaporation rate	Data not available
Flammability (solid, gas)	Non-flammable
Explosive limits	Data not available
Vapour pressure [20°C]	Data not available
Vapour pressure [50°C]	Data not available
Vapour density	Data not available
Relative density, liquid (water=1)	Data not available

Argon 98% - Hydrogen 2%
MTG....

Relative density, gas (air=1)	1.35
Water solubility	Data not available
Partition coefficient n-octanol/water (Log Kow)	Data not available
Auto-ignition temperature	Non-flammable
Decomposition temperature	Data not available
Viscosity	Data not available
Explosive properties	Data not available
Oxidising properties	Data not available

9.2. Other information

Molar mass	39.19 g/mol
Critical temperature [°C]	Data not available
Relative vapour density	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

SECTION 10: Stability and reactivity
10.1. Reactivity

Data not available

10.2. Chemical stability

Stable under the recommended storage conditions

10.3. Possibility of hazardous reactions

Data not available

10.4. Conditions to avoid

Data not available

10.5. Incompatible materials

None

For additional information on compatibility refer to ISO 11114 standard

10.6. Hazardous decomposition products

Data not available

Argon 98% - Hydrogen 2%
MTG....
SECTION 11: Toxicological information
11.1. Information on toxicological effects

Acute toxicity	Data not available
Skin corrosion/irritation	Data not available
Serious eye damage/irritation	Data not available
Respiratory or skin sensitisation	Data not available
Germ cell mutagenicity	Data not available
Carcinogenicity	Data not available
Reproductive toxicity	Data not available
STOT-single exposure – Target organ(s)	Data not available
STOT-repeated exposure	Data not available
Ingestion hazard	Data not available

SECTION 12: Ecological information
12.1. Toxicity

Assessment	No risk
------------	---------

12.2. Persistence and degradability

Data not available

12.3. Bioaccumulative potential

Data not available

12.4. Mobility in soil

Data not available

12.5. Results of PBT and vPvB assessment

No data available. PBT / vPvB assessment is not available as chemical safety assessment is not required / not conducted

12.6. Other adverse effects

Data not available

SECTION 13: Disposal considerations
13.1. Waste treatment methods

Product	May be vented to atmosphere in a well-ventilated place.
---------	---

Argon 98% - Hydrogen 2%

MTG....

Do not discharge into any place where its accumulation could be dangerous

Contaminated container

Return unused product in original cylinder to supplier

OMoD Code

16 05 05

Gases in pressure containers other than those mentioned in 16 05 04.

SECTION 14: Transport information

14.1. UN number

Transport by road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
1956	1956	1956

14.2. UN proper shipping name

Transport by road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
COMPRESSED GAS, N.O.S., (Argon, Hydrogen)	COMPRESSED GAS, N.O.S., (Argon, Hydrogen)	COMPRESSED GAS, N.O.S., (Argon, Hydrogen)

14.3. Transport hazard class(es)

Labelling



**ADR/RID
 IMDG
 IATA**

2.2 : Non-flammable, non-toxic gases

14.4. Packing group

**ADR/RID
 IMDG
 IATA**

-

14.5. Environmental hazards

ADR/RID

None

IMDG

None

ICAO-TI / IATA-DGR


None

14.6. Special precautions for user

-

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

	SAFETY DATASHEET	Page : 9/10
		Revised edition n° : 10.0
		Revision date : 11/2021
Argon 98% - Hydrogen 2%		MTG....

SECTION 15: Regulatory information

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

This safety data sheet complies with the requirements of Regulation (CE) No. 1907/2006

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
Abbreviations and acronyms	<p>ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>CAS : Chemical Abstract Service number (USA)</p> <p>CLP : Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008</p> <p>CSA : Chemical Safety Assessment</p> <p>EIGA : European Industrial Gases Association</p> <p>EINECS : European Inventory of Existing Commercial Chemical Substances</p> <p>EN : European Standard</p> <p>ATE : Acute Toxicity Estimate</p> <p>IATA : International Air Transport Association</p> <p>IMDG Code : International Maritime Dangerous Goods Code</p> <p>LC50 : Lethal Concentration to 50 % of a test population</p> <p>OMoD : Swiss Ordinance on the movement of waste</p> <p>PBT : Persistent, Bioaccumulative and Toxic</p> <p>PPE: Personal Protection Equipment</p> <p>REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006</p> <p>RID : Regulations concerning the international carriage of dangerous goods by rail</p> <p>RMM : Risk Management Measures</p> <p>STOT-SE : Specific Target Organ Toxicity - Single Exposure</p> <p>UN : United Nations</p> <p>vPvB : Very Persistent and Very Bioaccumulative</p> <p>WGK: Water Hazards Class</p>

Full text of H, EUH and P statements used in sections 2 and 3

Hazard statements

H280

Contains gas under pressure; may explode if heated

	SAFETY DATASHEET	Page : 10/10
		Revised edition n° : 10.0
		Revision date : 11/2021
Argon 98% - Hydrogen 2%		MTG....

Precautionary statements

P410+P403 Protect from solar radiation. Store in a well-ventilated place

Disclaimer of liability

Details given in this document have been prepared based on the most available reliable documents and are believed to be correct at the time of going to press

They do not claim to be exhaustive and should be considered as a guide