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

1.1. Product identifier

Trade name	ATL-ArF2
Chemical description	Neon – Argon – Xenon - Fluorine
CAS N°	-
CE N°	-
Index N°	-
Registration n°	-
Chemical formula	Ne – Ar – Xe – F2

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

Relevant identified uses	Industrial and professional Test gas/Calibration gas Laboratory use Contact supplier for more information on uses
Uses advised against	Consumer use not recommended

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]

Physical hazards Gases under pressure : Compressed gas

H280

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

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2.2. Label elements

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

Hazard pictograms



GHS04

Signal word

Hazard statements

H280

Warning

Contains gas under pressure; may explode if heated

Precautionary statements

P410+403

Protect from sunlight. 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
Neon	(CAS-No.) 7440-01-9 (EC-No.) 231-110-9 (EC Index-No.) --- (Registration-No.) --	< 98%	Press. Gas (Comp.), H280
Argon	(CAS_No) 7440-37-1 (EC-No.) 231-147-0 (EC Index-No.) --- (Registration-No.) -	< 3.5%	Press. Gas (Comp.), H280
Xenon	(CAS-No) 7440-63-3 (EC-No.) 231-172-7 (EC Index-No.) --- (Registration-No.) -	50 ppm (0.005%)	Press. Gas (Liqu); H280
Fluorine	(CAS-No) 7782-41-4 (EC-No.) 231-954-8 (EC Index-No.) --- (Registration-No.) -	<2'000 ppm (0. 2%)	Oxid. Gas 1; H270, Skin Corr. 1A; H314, Eye Dam. 1; H318, Press. (Comp.) Gas; H280, Acute Tox. 1;H330

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

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3.2. Mixtures

Not established

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	Adverse effects not expected from this product
In case of eyes contact	Adverse effects not expected from this product
In case of ingestion	Do NOT induce vomiting. 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

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray or water mist. Dry powder. Carbon dioxide. Foam
Unsuitable extinguishing media	No data available

5.2. Special hazards arising from the substance or mixture

Specific hazards	Exposure to fire may cause containers to rupture/explode
Hazardous combustion products	No data available

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

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Evacuate personnel to a safe place
 Personal protective equipment, see section 8

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

For precautions, see section 2.2

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
 Content under pressure

7.3. Specific end use(s)


None

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with occupational exposure limits

Component	CAS N°	Exposure value type	Control parameter	Source
Neon	7440-01-9	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	
Argon	7440-37-1	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	

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Xénon	7440-63-3	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	
Fluor	7782-41-4	TWA	0.1 ppm	SUVA: Valori limite di esposizione sul posto di lavoro
			0.15 mg/m ³	
		OEL	0.2 ppm	SUVA: Valori limite di esposizione sul posto di lavoro
			0.3 mg/m ³	

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation
Oxygen detectors must be used when asphyxiating gases can be released

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

Eye/face protection	Wear goggles and a face shield when transfilling or breaking transfer connections. Standard EN 166
Skin / hand protection	Wear protective gloves when handling gas cylinders. Standard EN 388- Protective gloves against mechanical hazards
Respiratory protection	Self-contained breathing apparatus (SCBA) or positive pressure air mask must be used in oxygenated atmospheres. Standard EN 137 - Self-contained compressed air device with a 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 No data available

Odour threshold No data available

pH No data available

Melting point / Freezing point No data available

Boiling point No data available

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Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Vapour pressure [20°C]	No data available
Vapour pressure [50°C]	No data available
Vapour density	No data available
Relative density, liquid (water=1)	No data available
Relative density, gas (air=1)	0.72
Water solubility	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

Molar mass	No data available
Critical temperature [°C]	No data available
Relative density, gas	0.72

SECTION 10: Stability and reactivity
10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below

10.2. Chemical stability


Stable under recommended storage conditions

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

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10.5. Incompatible materials

No data available
For more information on compatibility, refer to ISO 11114

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Chemical safety assessment

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure – Target organ(s)	No data available
STOT-repeated exposure	No data available
Ingestion hazard	No data available

SECTION 12: Ecological information

12.1. Toxicity

Assessment	No data available
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12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT / vPvB assessment is not available because the chemical safety assessment is not required / is not conducted

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12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	Must not be released into the atmosphere Burning in a chemical incinerator equipped with an afterburner and purification system Return unused product to the supplier in its original container
Contaminated container	Eliminate as unused product
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 par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
1956	1956	1956

14.2. UN proper shipping name

Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
Compressed gas, N.O.S.(Neon, Fluorine)	COMPRESSED GAS, N.O.S.(Neon, Fluorine)	Compressed gas, N.O.S. (Neon, Fluorine)

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

Not established

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14.5. Environmental hazards

ADR/RID	None
IMDG	None
ICAO-TI / IATA-DGR	None

14.6. Special precautions for user

No data available

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

Not applicable

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>

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RID : Regulations concerning the international carriage of dangerous goods by rail
 RMM : Risk Management Measures
 STOT-SE : Specific Target Organ Toxicity - Single Exposure
 UN : United Nations
 vPvB : Very Persistent and Very Bioaccumulative
 WGK: Water Hazards Class

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

Hazard statements

H280

Warning

Contains gas under pressure; may explode if heated

Precautionary statements

P410+403

Protect from sunlight. 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