	SAFETY DATASHEET	Page : 1/10
		Revised edition n° : 10.0
		Revision date : 08/2019
Helium – Tetradecafluorohexane 0.1%		MTGxxx

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

1.1. Product identifier

Trade name	1'000ppm nC ₆ F ₁₄ _QS He (Helium – Tetradecafluorohexane)
Chemical description	Helium 99.9% - Tetradecafluorohexane 0.1%
CAS N°	-
CE N°	-
Index N°	-
Registration n°	Exempted from registration
Chemical formula	He, nC ₆ F ₁₄

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 Application in the food industry 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]

	SAFETY DATASHEET	Page : 2/10
		Revised edition n° : 10.0
		Revision date : 08/2019
Helium – Tetradecafluorohexane 0.1%		MTGxxx

Hazards Gases under pressure : Compressed gas H280
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 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
Helium	(CAS-No.) 7440-59-7 (EC-No.) 231-168-5 (EC Index-No.) --- (Registration-No.)--	99.9%	Press. Gas (Comp.), H280
Tetradecafluorohexane	(CAS-No.) 355-42-0 (EC-No.) 206-585-0 (EC Index-No.) --- (Registration-No.)--	0.1%	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

	SAFETY DATASHEET	Page : 3/10
		Revised edition n° : 10.0
		Revision date : 08/2019
Helium – Tetradecafluorohexane 0.1%		MTGxxx

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray or water mist. Dry powder. Carbon dioxide. Foam
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 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
Evacuate personnel to a safe place
Personal protective equipment, see section 8

	SAFETY DATASHEET	Page : 4/10
		Revised edition n° : 10.0
		Revision date : 08/2019
Helium – Tetradecafluorohexane 0.1%		MTGxxx

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
Helium	7440-59-7	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	
Tetradecafluorohexane	355-42-0	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	

8.2. Exposure controls

	SAFETY DATASHEET	Page : 5/10
		Revised edition n° : 10.0
		Revision date : 08/2019
Helium – Tetradecafluorohexane 0.1%		MTGxxx

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation
Gas detectors should be used when toxic gases may 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 - Personal eye-protection
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

No data available

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 -272°C

Boiling point -269°C

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) 0.14

Water solubility No data available

Partition coefficient No data available

Helium – Tetradecafluorohexane 0.1%
MTGxxx

n-octanol/water (Log Kow)

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 4 g/mol

Critical temperature [°C] -268°C

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

10.5. Incompatible materials

No data available

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

Helium – Tetradecafluorohexane 0.1%

MTGxxx

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

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

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	May be vented to atmosphere in a well ventilated place Do not discharge into any place where its accumulation could be dangerous Return surplus and non-recyclable solutions to a licensed waste disposal company
Contaminated container	Eliminate as unused product Contact the supplier if instructions are needed
OMoD Code	16 05 05 Gases in pressure containers containing dangerous substances

Helium – Tetradecafluorohexane 0.1%

MTGxxx

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. (Helium, Tetradecafluorohexane)	COMPRESSED GAS, N.O.S. (Helium, Tetradecafluorohexane)	COMPRESSED GAS, N.O.S. (Helium, Tetradecafluorohexane)

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

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

	SAFETY DATASHEET	Page : 9/10
		Revised edition n° : 10.0
		Revision date : 08/2019
Helium – Tetradecafluorohexane 0.1%		MTGxxx

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 : 08/2019
Helium – Tetradecafluorohexane 0.1%		MTGxxx

Precautionary statements

P410+P403 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