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

1.1. Product identifier

Trade name	Mixture Oxygen 30% - Helium 70%
Chemical description	Oxygen 30% - Helium 70%
CAS N°	-
CE N°	-
Index N°	-
Registration n°	-
Chemical formula	He, O_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 Contact supplier for more information on uses
Uses advised against	For use by industrial or professional users only

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]

Oxidising Gases, Category 1	H270
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

GHS03 GHS04

Signal word Danger

Hazard statements

H270	May cause or intensify fire; oxidiser
H280	Contains gas under pressure; may explode if heated

Precautionary statements

P220	Keep away from combustible materials
P244	Keep valves and fittings free from oil and grease
P370+P376	In case of fire: stop leak if safe to do so
P410+P403	Protect from sunlight. Store in a well-ventilated place

2.3. Other hazards

High-pressure oxidising gas
Accelerates combustion considerably

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	Concentration	Classification
Oxygen	(CAS-No.) 7782-44-7 (EC-No.) 231-956-9 (EC Index-No.) 008-001-00-8 (Registration-No.) --	30%	Ox. Gas 1, H270 Press. Gas (Comp.), H280
Helium	(CAS-No.) 7440-59-7 (EC-No.) 231-168-5 (EC Index-No.) - (Registration-No.) --	70%	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

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 — Ingestion is not considered a possible route of exposure

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

No data available

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 — The product itself does not burn

Water spray or water mist. Dry powder. Carbon dioxide. Alcohol-resistant foam

Unsuitable extinguishing media — Do not use water jet to extinguish

5.2. Special hazards arising from the substance or mixture

Specific hazards — Supports combustion

Exposure to fire may cause containers to rupture/explode

Hazardous combustion products — None

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

Clothing exposed to high concentrations of oxygen may retain it for 30 minutes or more and become a potential fire hazard

Provide adequate ventilation

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

Keep away from sources of ignition. Use only spark-proof tools. No smoking

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)

-

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with occupational exposure limits

Component	CAS N°	Exposure value type	Control parameter	Source
Oxygen	7782-44-7	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	
Helium	7440-59-7	TWA	-	No occupational exposure limit value
			-	
		OEL	-	
			-	

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation

Gas detectors should be used when oxidising 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
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	It is not technically possible to determine the boiling point or boiling range of this mixture
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Non-flammable
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)	0.0005 g/m^3 (20°C)
Relative density, gas (air=1)	0.4282

Water solubility	Low
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	12.4 g/mol
Critical temperature [°C]	No data available
Relative vapour density	Lighter than air

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

Violently oxidises organic materials, phosphorus, metal powders

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

May react violently with combustible materials

May react violently with reducing agents

Keep equipment free from oil and grease

Consider the potential toxicity hazard due to the presence of chlorinated or fluorinated polymers in high pressure (> 30 bar) oxygen lines in case of combustion

For additional information on compatibility refer to ISO 11114

10.6. Hazardous decomposition products

None

SECTION 11: Toxicological information

11.1. Chemical safety assessment

Acute toxicity	No known toxicological effects from this product
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

11.2. Information on other hazards

The substance/mixture has no endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

Assessment The product does not harm the environment

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. Endocrine-disrupting properties

The substance / mixture does not have endocrine disrupting properties

12.7. Other adverse effects

This product is not associated with any known ecological toxicological effects

Effect on the ozone layer No known effect with this product

Ozone depletion potential None

Effect on global warming No known effect with this product

Global warming potential None

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

Contaminated container Return to the supplier the product not consumed in its original container
Contact the supplier if instructions are needed

OMoD Code 16 05 04
Gases in pressure containers (including halons) containing dangerous substances

SECTION 14: Transport information

14.1. UN number

Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
3156	3156	3156

14.2. UN proper shipping name

Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
COMPRESSED GAS, OXIDIZING, N.O.S., (OXYGEN, HELIUM)	COMPRESSED GAS, OXIDIZING, N.O.S., (OXYGEN, HELIUM)	COMPRESSED GAS, OXIDIZING, N.O.S., (OXYGEN, HELIUM)

14.3. Transport hazard class(es)

Labelling

ADR/RID
IMDG
IATA

2.2 : Non-flammable, non-toxic gases
(5.1 : Oxidizing substances)

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

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

ADR :	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS :	Chemical Abstract Service number (USA)
CLP :	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CSA :	Chemical Safety Assessment
EIGA :	European Industrial Gases Association
EINECS :	European Inventory of Existing Commercial Chemical Substances
EN :	European Standard
ATE :	Acute Toxicity Estimate
IATA :	International Air Transport Association
IMDG Code :	International Maritime Dangerous Goods Code
LC50 :	Lethal Concentration to 50 % of a test population

OMoD :	Swiss Ordinance on the movement of waste
PBT :	Persistent, Bioaccumulative and Toxic
PPE:	Personal Protection Equipment
REACH :	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
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

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Precautionary statements

P220	Keep away from combustible materials
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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