

Oxygen, compressed
000090300072_GB_EN

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

1.1. Product identifier

Name of product	Oxygen, compressed
	Prod-Nr. diverse
Name of substance	oxygen
Index No	008-001-00-8
EC No	231-956-9
CAS No	7782-44-7

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

Identified uses

Sector of uses [SU]

SU20 - Health services
SU2a - Mining (without offshore industries)
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU0 - Other

Product categories [PC]

PC0 - Other
Oxidizing agents.

Process categories [PROC]

Professional:
PROC0 - Other Process or activity:

Article categories for substances in articles without intended release
not applicable

Article categories for substances in articles with intended release
not applicable

Environmental release categories [ERC]
not applicable

Remark
no

Uses advised against

Sector of uses [SU]
not determined

Product categories [PC]
not determined

Process categories [PROC]
not determined

Article categories for substances in articles without intended release
not applicable

Article categories for substances in articles with intended release
not applicable

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Remark

Do not use for inflating balloons.
Do not use for medical-clinical purposes.
Do not use for private purposes (household).

Recommended intended purpose(s)

As breathing gas

Effect of the substance / the mixture

Supports the respiration

1.3. Details of the supplier of the safety data sheet

Distributor

Dräger Safety UK Ltd.
Ullswater Close, Blyth Riverside Business Park, UK-NE24
4RG Blyth; Northumberland
Phone +44 1670 352891, Fax +44 1670 356266
E-Mail info@draeger.com
Internet www.draeger.com

Advice

Dräger Environmental Management
Phone +49 451 882 3125
Fax +49 451 882 73125
E-mail (competent person):
msds@draeger.com

1.4. Emergency telephone number

Emergency advice

National Poisons Information Service, West Midlands
Poisons Unit, City Hospital NHS Trust, Dudley Ro
Phone (0) 12 15 07 55 88/9

Manufacturer

Dräger Safety AG & Co. KGaA
Revalstr. 1, D-23560 Lübeck
Phone +49 (0) 451/882-0, Fax +49 (0) 451/882-2080
E-Mail info@draeger.com
Internet www.draeger.com

Advice

Dräger Umweltmanagement
Phone +49 (0) 451 / 882-3125
Fax +49 (0) 451 / 882-73125
E-mail (competent person):
msds@draeger.com

1.4. Emergency telephone number

Emergency advice

Giftinformationszentrum Nord, Göttingen; Tel. (0551) 1 92 40
Phone +49 (0) 451/ 882-2395 (Dräger Werkschutz)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC

O; R8

R-phrases

8 Contact with combustible material may cause fire.

Additional hints

no

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Ox. Gas 1 Compr. Gas	H270 H280	

Ox. Gas 1	H270
Compr. Gas	H280

Hazard statements for physical hazards

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

Additional hints

The substance is classified as hazardous according to Regulation (EC) 1272/2008 [GHS].

2.2. Label elements

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



GHS03

GHS04

Signal word

Danger

Hazard statements for physical hazards

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

Precautionary Statements

General

P103 Read label before use.

Prevention

P220 Keep/Store away from clothing/.../combustible materials.
P244 Keep valves and fittings free from oil and grease.

Response

P370 + P376 In case of fire: Stop leak if safe to do so.

Storage

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

Disposal

not applicable

Supplemental Hazard information (EU)

Physical properties

no

Health properties

no

Environmental properties

no

Special rules for supplemental label elements for certain mixtures

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Additional information

Special rules on packaging

no

Special rules for labelling of plant protection products

not applicable

Remark

no

2.3. Other hazards

Adverse physicochemical effects

Caution! Container under pressure.

The accumulation in lowlying or closen rooms can cause increased danger of fire and explosion.

Adverse human health effects and symptoms

not determined

Adverse environmental effects

no

Other adverse effects

no

Information pertaining to special dangers for human and environment

Harmful: danger of serious damage to health by prolonged inhalation

Contact with combustible material may cause fire.

Explosive when mixed with combustible material.

Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

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SECTION 3: Composition/ information on ingredients

3.1. Substances

Description
not applicable

CAS No 7782-44-7 oxygen
EC No 231-956-9
Index No 008-001-00-8

Additional advice
no

3.2. Mixtures
not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
no

In case of inhalation
No special measure necessary.

In case of skin contact
No special measure necessary.

In case of eye contact
not determined

In case of ingestion
not applicable

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

Physician's information / possible symptoms
not determined

Physician's information / possible dangers
not determined

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

Treatment (Advice to doctor)
not determined

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Fire-extinguishing activities according to surrounding.
ABC powder
Carbon dioxide

Unsuitable extinguishing media
no

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5.2. Special hazards arising from the substance or mixture
not determined

5.3. Advice for firefighters
Special protective equipment for fire-fighters
no

Additional information
Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Keep away sources of ignition.
Pay attention to extension of gas especially at ground (heavier than air) and in direction of the wind.

6.2. Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up
Suck off by room ventilation.

Additional Information
no

6.4. Reference to other sections
No information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.
No special measures necessary if used correctly.
Open and handle container with care!
Use only in well-ventilated areas.

General protective measures
not determined

Hygiene measures

At work do not eat, drink and smoke.
Work in rooms with good ventilation.
Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking
Keep at distance of acids, reducing agents and organic substances (e.g. wood, paper, fat).
The product is not combustible, but supports burning.
Substance/product can lower the ignition temperature of flammable substances.
Explosive in mixture with organic substances.

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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in closed original container.
Ventilate store-rooms thoroughly.

Advice on storage compatibility

Do not store with combustible materials.
Keep at distance to reducing agents.
Keep at distance to combustible materials.
Store only in original container at cool and aired place and at distance to acids and reducing materials.

Further information on storage conditions

Keep container tightly closed, store at cool and aired place, open and handle carefully.
Protect compressed gas-bottles from falling down.
Storage temperature may not exceed 50°C (=122°F).
Store only in the open air or in explosion-proof rooms.

Information on storage stability

no

Storage group 2A

7.3. Specific end use(s)

Recommendation(s) for intended use

not determined

Particular industry solution(s) for intended use

not applicable

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice

no

8.2. Exposure controls

Respiratory protection

In case of insufficient ventilation or long-term effect use breathing apparatus.

Hand protection

not determined

Eye protection

tightly fitting goggles

Other protection measures

not determined

Limitation and surveillance of the environment

not determined

Appropriate engineering controls

not determined

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance compressed gas	Colour colourless	Odour odourless
Odour threshold not determined		

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not applicable	not applicable	not applicable	not applicable	not applicable
Acid number	not applicable			not applicable	not applicable
boiling point	-183 °C		1 bar	not determined	no
melting point	-219 °C			not determined	no
Flash point	not applicable			not applicable	no
Vapourisation rate	not applicable			not applicable	no
Flammable (solid)	not applicable			not applicable	not applicable
Flammability (gas)	not applicable			not applicable	not applicable
Ignition temperature	not applicable			not applicable	not applicable
Self ignition temperature	not applicable			not applicable	not applicable
Lower explosion limit	not applicable			not applicable	no
Upper explosion limit	not applicable			not applicable	no
Vapour pressure	not applicable	20 °C		not applicable	no
Relative density	ca. 1,1 g/cm ³	-219 °C	ca. 1 bar	not determined	no
Bulk density	not applicable			not applicable	no
Vapour density	ca. 1,1	20 °C	1 bar	not determined	no
Solubility in water	ca. 39 mg/l	ca. 20 °C	ca. 1 bar	not determined	no
Solubility/other	not determined	not determined	not determined	not determined	no
Partition coefficient n-octanol/water (log P O/W)	not determined	not determined		not determined	no

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	Value	Temperature	at	Method	Remark
Decomposition temperature	not applicable			not applicable	not applicable
Viscosity not determined	not determined	not determined		not applicable	no
Viscosity not determined	not determined	not determined		not applicable	no
Solvent separation test	not determined			not determined	no
Solvent concentration	not applicable			not applicable	no
Water content	not determined			not determined	no
Solids content	not determined			not determined	no
Combustion value	not applicable				
Shock sensitivity	no			not applicable	
Oxidising properties Oxidizer					
Explosive properties not determined					
9.2. Other information No information available.					

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidising agent, strong
 Reactions with combustible substances.
 Reactions with fats and oils.
 Reactions with reducing agents.
 Reactions with organic substances.
 Evolution of explosive gases/vapours.
 Risk of inflammation in case of contact with organic substances.

10.2. Chemical stability
 not determined

10.3. Possibility of hazardous reactions
 not determined

10.4. Conditions to avoid
 Reactions with combustible substances.
 Reactions with fats and oils.
 Reactions with reducing agents.
 Reactions with organic substances.
 Risk of bursting.

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Risk of inflammation in case of contact with organic substances.

10.5. Incompatible materials

Materials to avoid

Reactions with combustible substances.
 Reactions with fats and oils.
 Reactions with reducing agents.
 Reactions with organic substances.
 As oxidising agent, attacks organic substances such as wood, paper, fats.
 Risk of inflammation in case of contact with organic substances.

10.6. Hazardous decomposition products

no

Thermal decomposition

Method not determined

Remark not determined

Additional information

no

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	not determined	not determined	not determined	no
LD50 acute dermal	not determined	not determined	not determined	no
LC50 acute inhalation	not determined	not determined	not determined	no
Irritability skin	not determined	not determined	not determined	no
Irritability eye	not determined	not determined	not determined	no
Skin sensitization	not determined	not determined	not determined	no
Sensitization respiratory system	not determined	not determined	not determined	no

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation

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	Value	Species	Method	Validation
Subacute Toxicity	not determined	not determined	not determined	no
Subchronic Toxicity	not determined	not determined	not determined	no
Chronic Toxicity	not determined	not determined	not determined	no
Mutagenicity	not determined	not determined	not determined	no
Reproduction-Toxicity	not determined	not determined	not determined	no
Carcinogenicity	not determined	not determined	not determined	no
Specific target organ toxicity (single exposure) No information available.				
Specific target organ toxicity (repeated exposure) No information available.				
Aspiration hazard not applicable				
Toxicity test (Additional information) no				
Experiences made from practice no				
Additional information no				

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	not determined	not determined	not determined	no
Daphnia	not determined	not determined	not determined	no
Algae	not determined	not determined	not determined	no
Bacteria	not determined	not determined	not determined	no

12.2. Persistence and degradability

Physico-chemical degradability	not determined	not determined	not determined	no
Biological degradability	not determined	not determined	not determined	no

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	Elimination rate	Method of analysis	Method	Validation
Degradability	not determined	not determined	not determined	no
Biological eliminability	not determined	not determined	not determined	no
Degradability according to WRMG	not determined	not determined	not determined	no

12.3. Bioaccumulative potential

not determined

12.4. Mobility in soil

not determined

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

not determined

Behaviour in sewage plant

not determined

Respiration inhibition of activated sludge

	Value	Method	Remark
EC 50	not determined	not determined	no

Additional ecological information

	Value	Method	Remark
OC	not determined	not determined	no
COD	not determined	not determined	no
BOD 99.40.n.b.	not determined	not determined	no
AOX	not determined		

Contains following heavy metals and compounds of the 76/464/EWG

not applicable

General regulation

If appropriate application no interferences in sewage treatment plants.

Material has no ecologically harmful effects.

Product does not cause biological oxygen loss.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.	Name of waste
16 05 05	gases in pressure containers other than those mentioned in 16 05 04

Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)
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Recommendations for the product

Remove in accordance with local official regulations.

Recommendations for packaging

Totally emptied packaging may be taken for recycling.

Recommended cleansing agent

not applicable

General information

no

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1072	1072	1072
14.2. UN proper shipping name	Oxygen, compressed	Oxygen, compressed	Oxygen, compressed
14.3. Transport hazard class(es)	2.2 (5.1)	2.2 (5.1)	2.2 (5.1)
14.4. Packing group	./.	./.	./.
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user

no

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

Land and inland navigation transport ADR/RID

Hazard label(s) 2.2 (5.1)
tunnel restriction code E
Special provisions 355, 655
Classification code 1O

Transport/further information

no

SECTION 15: Regulatory information

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

Authorizations
not applicable

Application restrictions
not determined

Other regulations (EU)
not determined

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VOC standard

Remark

not applicable

National regulations

Restriction of occupation

no

Other regulations, restrictions and prohibition regulations

To observe: TRG 280 "General demands for gas pressure vessels; operating with gas pressure vessels"
To observe: TRG 101 "Gases"
To observe: TRGS 515 "Storage of fire promoting substances in packagings and transportable containers"
UVV "Gases" (VBG 61)
UVV "Oxygen" (VBG 62)
ZH 1/119 "Guidelines for Laboratories"
ZH 1/124 "Plant instructions for working with hazardous substances (A 010)"
ZH 1/220 "Regulations on Hazardous Materials"
ZH 1/307 "Data Sheet: Handling of oxygen (M 034)"
ZH 1/380 "Data Sheet: Oxygen as a danger to life"
ZH 1/383 "Data Sheet: When does Oxygen become a danger to life?"

Water hazard class - list substance
nwh - not water hazardous

Technical instruction air remarks

not applicable

Decree for case of interference/remarks Accident decree, addendum II: not named.

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Training advice

not determined

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

All declarations of safety-data-sheet refer to pure substance.
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.0

Sources of key data used

not determined