

000090300104Kalibriergas_AU_EN various calibration gases in air (about 18% O₂, N₂-Bal.)

Calibration gas, Test gas, H₂S, NO₂, CO, CO₂, NH₃, H₂, SO₂, CH₄, C₂H₄, C₃H₈, C₄H₁₀, C₄H₈, C₅H₁₂, C₆H₁₄, C₇H₈, SF₆, O₂, N₂-Bal [configured]

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Version 1.1 (en,AU)
replaces version of 05.06.2023 (1.0)

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

1.1 Product identifier

Trade name/designation Calibration gas, Test gas, H₂S, NO₂, CO, CO₂, NH₃, H₂, SO₂, CH₄, C₂H₄, C₃H₈, C₄H₁₀, C₄H₈, C₅H₁₂, C₆H₁₄, C₇H₈, SF₆, O₂, N₂-Bal [configured]

Prod-Nr various calibration gases in air (about 18% O₂, N₂-Bal.)

- various, see section 16

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

Sector of uses [SU]

SU20 Health services

SU2a Mining, (without offshore industries)

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU0 Other

Process categories [PROC]

Professional:

PROC0 Other

Environmental release categories [ERC]

not applicable

Product Categories [PC]

PC0 Other

Article categories [AC]

not applicable

Use of the substance/mixture

Gas mixture for the calibration of sensors.

Uses advised against

Do not use for inflating balloons.

Do not use for medical-clinical purposes.

Do not use for private purposes (household).

Remark

Gas mixture may contain toxic gases in low concentrations.

The concentrations are usually below occupational exposure limits.

none

1.3 Details of the supplier of the safety data sheet

Supplier

Dräger Australia Pty Ltd

8 Acacia Place

AUS-3168 Notting Hill VIC

Telephone + 61 3 9265 5000 or + 61 3 1800 37 24 37

E-mail info@draeger.com

Website www.draeger.com

Department responsible for information:

Dräger Global EHS Management

Telephone +49 451 882 65997

Telefax +49 451 882 76979

E-mail (competent person):

sds@draeger.com

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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1.4 Emergency telephone number

Poisons Information Centre 13 11 26

* SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Classification procedure

Press. Gas (Comp.), H280

Hazard statements for physical hazards

H280 Contains gas under pressure; may explode if heated.

Remark

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
none

* 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

P103 Read carefully and follow all instructions.

P233 Keep container tightly closed.

P202 Do not handle until all safety precautions have been read and understood.

P376 Stop leak if safe to do so.

P412 Do not expose to temperatures exceeding 50 °C/122 °F.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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

P501 Contents / container to properly dispose and recycle.

Supplemental hazard information

none

special rules for labelling of plant protection products

not applicable

Special rules on packaging

none

Other labelling

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

2.3 Other hazards

Adverse physicochemical effects

Caution! Container under pressure.

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Adverse human health effects and symptoms

This information is not available.

Adverse environmental effects

none

Other adverse effects

This information is not available.

Results of PBT and vPvB assessment

No data available

*** SECTION 3: Composition / information on ingredients**

3.1 Substances

not applicable

*** 3.2 Mixtures**

Description

Included depending on the version:

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
7727-37-9	231-783-9	Nitrogen	> 74 %		ATE(inhalation gas): 250000 mg/L
124-38-9	204-696-9	Carbon dioxide	0 - 20 %		ATE(inhalation gas): 820000 mg/L
7782-44-7	231-956-9	oxygen	18 %	Ox. Gas 1; H270 Press. Gas	ATE(inhalation gas): 250000 mg/L
74-98-6	200-827-9	propane	0 - 5 %	Flam. Gas 1; H220 Press. Gas	ATE(inhalation vapour): > 20 mg/L
74-82-8	200-812-7	methane	0 - 3 %	Flam. Gas 1; H220 Press. Gas	
1333-74-0	215-605-7	hydrogen	0 - 2.2 %	Flam. Gas 1; H220 Press. Gas	
74-85-1	200-815-3	ethylene	0 - 1.5 %	Flam. Gas 1; H220 Press. Gas	
106-97-8	203-448-7	butane	0 - 1 %	Flam. Gas 1; H220 Press. Gas	ATE(inhalation dust/mist): 658 mg/L
110-54-3	203-777-6	n-hexane	0 - 0.8 %	Flam. Liq. 2; H225 Repr. 2; H361f Asp. Tox. 1; H304 STOT RE 2 ; H373 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	STOT RE 2;H373: C>=5%

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CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
109-66-0	203-692-4	pentane	0 - 0.5 %	Flam. Liq. 2; H225 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411; EUH066	
106-98-9	203-449-2	but-1-ene	0 ≤ 0.3 %	Flam. Gas 1; H220 Press. Gas	
630-08-0	211-128-3	carbon monoxide	< 0.3 %	Flam. Gas 1; H220 Press. Gas Repr. 1A; H360D Acute Tox. 3 ; H331 STOT RE 1; H372	
2551-62-4	219-854-2	Sulphur hexafluoride	0 - 0.2 %	Press. Gas (Comp.); H280	
108-88-3	203-625-9	toluene	0 - 0.1 %	Flam. Liq. 2; H225 Repr. 2; H361d Asp. Tox. 1; H304 STOT RE 2 ; H373 Skin Irrit. 2; H315 STOT SE 3; H336	
7446-09-5	231-195-2	sulphur dioxide	0 - 0.1 %	Press. Gas Acute Tox. 3 ; H331 Skin Corr. 1B; H314	*
7664-41-7	231-635-3	ammonia, anhydrous	0 - 0.05 %	Flam. Gas 2; H221 Press. Gas Acute Tox. 3 ; H331 Skin Corr. 1B; H314 Aquatic Acute 1; H400	
10102-44-0	233-272-6	nitrogen dioxide	0 - 0.05 %	Press. Gas Ox. Gas 1; H270 Acute Tox. 2 ; H330 Skin Corr. 1B; H314	STOT SE 3;H335: C>=0.5% *
115-11-7	204-066-3	2-methylpropene	0 - 0.015 %	Flam. Gas 1; H220 Press. Gas	
7783-06-4	231-977-3	hydrogen sulphide	0 - 0.01 %	Flam. Gas 1; H220 Press. Gas Acute Tox. 2 ; H330 Aquatic Acute 1; H400	

REACH No.	Substance name
-	Nitrogen

Remark
none

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
none

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Following inhalation

Remove casualty to fresh air and keep warm and at rest.
Provide fresh air.

Following skin contact

No special measures are necessary.

After eye contact

not determined

Following ingestion

not applicable

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

No known symptoms to date.

Effects

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Treat symptomatically.
Where appropriate artificial ventilation.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

ABC-powder
Carbon dioxide (CO₂)
Water spray jet

Unsuitable extinguishing media

none

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

This information is not available.

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings.
Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Remove all sources of ignition.
Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction.

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For emergency responders

Ensure adequate ventilation.

6.2 Environmental precautions

Suppress gases/vapours/mists with water spray jet.

6.3 Methods and material for containment and cleaning up

For containment

Suck off by room ventilation.

Other information

No known toxicological effects from this product.
No known ecological damage caused by this product.

6.4 Reference to other sections

Safe handling: see section 7
Disposal: see section 13

* SECTION 7: Handling and storage

* 7.1 Precautions for safe handling

*

Protective measures

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

No special measures are necessary.

Handle and open container with care.

Use only in well-ventilated areas.

Keep away from sources of ignition - No smoking.

The product is not:

Combustible

The product is:

oxidising

Usual measures for fire prevention.

Avoid effect of heat.

Do not inhale gases.

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff.

Work in rooms with good ventilation.

Wash hands before breaks and after work.

* 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.

Keep container tightly closed.

Ensure adequate ventilation of the storage area.

Storage class

2A Gases (except aerosol dispensers and lighters)

Materials to avoid

Do not store together with:

Oxidising agent

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- * **Further information on storage conditions**
Do not store with chemicals.
Keep only in the original container in a cool, well-ventilated place.
Keep away from:
Acid
Reducing agent
Keep container tightly closed in a cool, well-ventilated place.
Handle and open container with care.
Protect pressurised gas bottles against overturning.
Storage temperature may not exceed 50°C (=122°F).

7.3 Specific end use(s)

Recommendation
not determined

Industrial sector specific solutions
not applicable

* SECTION 8: Exposure controls/personal protection

* 8.1 Control parameters

* Occupational exposure limit values

CAS No.	EC No.	Substance name	occupational exposure limit value
7664-41-7	231-635-3	Ammonia, anhydrous	20 [ml/m ³ (ppm)] 14 [mg/m ³] Short-term(ml/m ³) 50 Short-term(mg/m ³) 36 2000/39/EC
108-88-3	203-625-9	Toluene	50 [ml/m ³ (ppm)] 192 [mg/m ³] Short-term(ml/m ³) 100 Short-term(mg/m ³) 384 skin resorptive 2006/15/EC
109-66-0	203-692-4	Pentane	1000 [ml/m ³ (ppm)] 3000 [mg/m ³] 2006/15/EC
110-54-3	203-777-6	n-Hexane	20 [ml/m ³ (ppm)] 72 [mg/m ³] 2006/15/EC
124-38-9	204-696-9	Carbon dioxide	5000 [ml/m ³ (ppm)] 9000 [mg/m ³] 2006/15/EC
7783-06-4	231-977-3	Hydrogen sulphide	5 [ml/m ³ (ppm)] 7 [mg/m ³] Short-term(ml/m ³) 10 Short-term(mg/m ³) 14 2009/161/EU
630-08-0	211-128-3	Carbon monoxide	20 [ml/m ³ (ppm)] 23 [mg/m ³] Short-term(ml/m ³) 100 Short-term(mg/m ³) 117 2017/164/EU
7446-09-5	231-195-2	Sulphur dioxide	0,5 [ml/m ³ (ppm)] 1,3 [mg/m ³] Short-term(ml/m ³) 1 Short-term(mg/m ³) 2,7 2017/164/EU

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CAS No.	EC No.	Substance name	occupational exposure limit value
10102-44-0	233-272-6	Nitrogen dioxide	0,5 [ml/m ³ (ppm)] 0,96 [mg/m ³] Short-term(ml/m ³) 1 Short-term(mg/m ³) 1,91 2017/164/EU
10102-44-0	233-272-6	nitrogen dioxide	0,5 [ml/m ³ (ppm)] 0,96 [mg/m ³] Short-term(ml/m ³) 1 Short-term(mg/m ³) 1,91 EU
124-38-9	204-696-9	carbon dioxide	5000 [ml/m ³ (ppm)] 9000 [mg/m ³] EU
7664-41-7	231-635-3	Ammonia	20 [ml/m ³ (ppm)] 14 [mg/m ³] Short-term(ml/m ³) 50 Short-term(mg/m ³) 36 OEL
109-66-0	203-692-4	pentane	1000 [ml/m ³ (ppm)] 3000 [mg/m ³] EU

* **DNEL worker**

CAS No.	Substance name	DNEL value	DNEL type	Remark
2551-62-4	Sulphur hexafluoride	6074 mg/m ³	long-term inhalative (systemic)	

* **PNEC**

CAS No.	Substance name	PNEC Value	PNEC type	Remark
2551-62-4	Sulphur hexafluoride	0.15 mg/L	aquatic, freshwater	

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
 not determined

Personal protection equipment

Eye/face protection
 Eye glasses with side protection

Hand protection
 Protective gloves against mechanical risks. Chemical hazards can not be expected under normal use.

Body protection:
 Light protective clothing.

Respiratory protection
 Respiratory protection necessary at:
 insufficient exhaust
 prolonged exposure
 Suitable respiratory protection apparatus:
 Multi-purpose filter ABEK

Thermal hazards
 not known

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Additional information

none
 Observe the expiry date.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

compressed gas

Colour

colourless

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			No data available
Melting point/freezing point	Melting point	not determined	none No data available
Boiling point or initial boiling point and boiling range	approx. -195 °C pressure 1 bar	not determined	none
flammability	solid	not applicable	not applicable
flammability	gaseous	not applicable	not applicable not determined
Lower and upper explosion limit	Upper explosion limit	not applicable	none
Lower and upper explosion limit	Lower explosion limit	not applicable	none
Flash point		not applicable	not applicable
Auto-ignition temperature		not applicable	not applicable
Auto-ignition temperature		not applicable	not applicable not determined
Decomposition temperature		not applicable	none No data available
Decomposition temperature		not determined	not determined
pH	in delivery state	not applicable	not applicable
Viscosity	not determined	not applicable	none not determined
Viscosity	not determined	not applicable	none not determined
Solubility(ies)	Water solubility approx. 39 mg/L (20°C) pressure 1 bar	not determined	none No data available
Solubility(ies)	not determined	not determined	none not determined
Partition coefficient n-octanol/water (log value)		not determined	none not determined
Vapour pressure	(20°C)	not applicable	none not applicable
Density and/or relative density		not applicable	none not applicable
Density and/or relative density	Bulk density	not applicable	none not applicable

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	Value	Method	Source, Remark
Relative vapour density	approx. 1 (20°C) pressure 1 bar	not determined	none
particle characteristics	not determined		

9.2 Other information

Other safety characteristics

	Value	Method	Source, Remark
Solvent content			none not applicable
Water content			none not determined
Solid content			none not applicable
acid number		not applicable	not applicable
Solvent separation test		not determined	none not determined
Explosive properties			not determined
Oxidising properties			No data available

Other information

Gas mixture may contain toxic gases in low concentrations.
The concentrations are usually below occupational exposure limits.

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reactions known.

10.2 Chemical stability

not determined

10.3 Possibility of hazardous reactions

not determined

10.4 Conditions to avoid

Danger of bursting container.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Gas mixture may contain toxic gases in low concentrations, which could be released.
Decomposition products of the respective test gas components.

Additional information

none

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	Species not determined	not determined	none not determined
Acute dermal toxicity	Species not determined	not determined	none not determined
Acute inhalation toxicity	Species not determined	not determined	none not determined
	CAS No.106-97-8 butane Acute inhalation toxicity (dust/mist) LC50: 658 mg/L Species Rat Exposure time 4 h		
	CAS No.74-98-6 propane Acute inhalation toxicity (vapour) LC50: > 20 mg/L Exposure time 4 h		
	CAS No.124-38-9 Carbon dioxide Acute inhalation toxicity (gas) LC50: 820000 mg/L Species Rat Exposure time 4 h		
	CAS No.7727-37-9 Nitrogen Acute inhalation toxicity (gas) LC50: 250000 mg/L Species Rat Exposure time 4 h		
	CAS No.7782-44-7 oxygen Acute inhalation toxicity (gas) LC50: 250000 mg/L Species Rat Exposure time 4 h		

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
not determined Species not determined	not determined	none

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
not determined Species not determined	not determined	none

Sensitisation to the respiratory tract

Assessment/classification

not determined

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Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not determined	Species not determined	not determined	none

Germ cell mutagenicity

	Value	Method	Result / Evaluation	Remark
In vitro mutagenicity/genotoxicity	Species not determined	not determined	none	not determined

Carcinogenicity

Animal data

	Value	Method	Result / Evaluation	Remark
Carcinogenicity	Species not determined	not determined	none	not determined

Reproductive toxicity

Animal data

	Value	Method	Result / Evaluation	Remark
Reproductive toxicity	Species not determined	not determined	none	not determined

STOT-single exposure

STOT SE 1 and 2

Animal data

	Effective dose	Method	Specific effects:	Organs affected:	Source, Remark
Oral specific target organ toxicity (single exposure)	Species not determined	not determined			none not determined
Dermal specific target organ toxicity (single exposure)	Species not determined	not determined			none not determined
Inhalative specific target organ toxicity (single exposure)	Species not determined	not determined			none not determined

Other information

No data available

STOT-repeated exposure

Animal data

	Effective dose	Method	Specific effects:	Organs affected:	Source, Remark
Oral specific target organ toxicity (repeated exposure)	Species not determined	not determined			none not determined
Oral specific target organ toxicity (repeated exposure)	Species not determined	not determined			none not determined
Dermal specific target organ toxicity (repeated exposure)	Species not determined	not determined			none not determined
Dermal specific target organ toxicity (repeated exposure)	Species not determined	not determined			none not determined

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000090300104Kalibriergas_AU_EN various calibration gases in air (about 18% O₂, N₂-Bal.)

Calibration gas, Test gas, H₂S, NO₂, CO, CO₂, NH₃, H₂, SO₂, CH₄, C₂H₄, C₃H₈, C₄H₁₀, C₄H₈, C₅H₁₂, C₆H₁₄, C₇H₈, SF₆, O₂, N₂-Bal [configured]

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	Effective dose	Method	Specific effects:	Organs affected:	Source, Remark
Inhalative specific target organ toxicity (repeated exposure)	Species not determined	not determined			none not determined
Inhalative specific target organ toxicity (repeated exposure)	Species not determined	not determined			none not determined

Other information
 No data available

Aspiration hazard

Remark
 not applicable

11.2 Information on other hazards

Other information

Toxicological data are not available.
 Mixture not tested.
 The product has not been tested. The information is derived from the properties of the individual components.
 No known toxicological effects from this product.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method, Evaluation	Source, Remark
Acute (short-term) fish toxicity	Species not determined	not determined	none
	CAS No.74-98-6 propane LC50: > 100 mg/L Test duration 96 h		
	CAS No.2551-62-4 Sulphur hexafluoride LC50: 263 mg/L Species Fisch Test duration 96 h		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	Species not determined	not determined	none
	CAS No.74-98-6 propane EC50 > 100 mg/L Test duration 48 h		
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No.74-98-6 propane ErC50: > 100 mg/L		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	Species not determined	not determined	none

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation		not determined	none not determined

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Calibration gas, Test gas, H₂S, NO₂, CO, CO₂, NH₃, H₂, SO₂, CH₄, C₂H₄, C₃H₈, C₄H₁₀, C₄H₈, C₅H₁₂, C₆H₁₄, C₇H₈, SF₆, O₂, N₂-Bal [configured]

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	Value	Method	Source, Remark
Biodegradation		not determined	none not determined

12.3 Bioaccumulative potential

Assessment/classification
 not determined

12.4 Mobility in soil

Assessment/classification
 not determined

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Additional ecotoxicological information

	Value	Method	Source, Remark
Chemical oxygen demand (COD)		not determined	none not determined
Biochemical oxygen demand		not determined	none not determined
Total organic carbon (TOC):		not determined	none not determined
AOX			not determined

Additional information

If appropriate application no interferences in sewage treatment plants.
 Ecological data are not available.
 No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
160505	gases in pressure containers other than those mentioned in 16 05 04

Appropriate disposal / Product

Dispose of waste according to applicable legislation.

Appropriate disposal / Package

Completely emptied packages can be recycled.

Remark

none

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)**000090300104Kalibriergas_AU_EN various calibration gases in air (about 18% O2, N2-Bal.)****Calibration gas, Test gas, H2S, NO2, CO, CO2, NH3, H2, SO2, CH4, C2H4, C3H8, C4H10, C4H8, C5H12, C6H14, C7H8, SF6, O2, N2-Bal [configured]**

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SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 1956	UN 1956	UN 1956
14.2 UN proper shipping name	COMPRESSED GAS, N.O.S.	COMPRESSED GAS, N.O.S.	Compressed gas, n.o.s.
14.3 Transport hazard class(es)	2.2	2.2	2.2
14.4 Packing group	-	-	-
14.5 Environmental hazards	No	No	No

14.6 Special precautions for user
 none

14.7 Maritime transport in bulk according to IMO instruments
 not applicable

All transport carriers
 none

Land transport (ADR/RID)

UN number or ID number	UN 1956
UN proper shipping name	COMPRESSED GAS, N.O.S.
Transport hazard class(es)	2.2
Hazard label(s)	2.2
Classification code	1A
Packing group	-
Environmental hazards	No
Limited quantity (LQ)	120 ml
Special provisions	274, 378, 392, 655, 662
Tunnel restriction code	E

Sea transport (IMDG)

UN number or ID number	UN 1956
UN proper shipping name	COMPRESSED GAS, N.O.S.
Transport hazard class(es)	2.2
Packing group	-
Environmental hazards	No
Limited quantity (LQ)	120 ml
Marine pollutant	No
EmS	F-C, S-V

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number	UN 1956
UN proper shipping name	Compressed gas, n.o.s.
Transport hazard class(es)	2.2
Packing group	-

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)



000090300104Kalibriergas_AU_EN various calibration gases in air (about 18% O₂, N₂-Bal.)

Calibration gas, Test gas, H₂S, NO₂, CO, CO₂, NH₃, H₂, SO₂, CH₄, C₂H₄, C₃H₈, C₄H₁₀, C₄H₈, C₅H₁₂, C₆H₁₄, C₇H₈, SF₆, O₂, N₂-Bal [configured]

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Environmental hazards No

SECTION 15: Regulatory information

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

EU legislation

Authorisations
not applicable

Restrictions on use
This information is not available.

Other regulations (EU)

To follow:
This information is not available.

15.2 Chemical Safety Assessment

National regulations

Chemical safety assessments for substances in this mixture were not carried out.

* SECTION 16: Other information

Key literature references and sources for data
not determined

Training advice
not determined

000090300104Kalibriergas_AU_EN various calibration gases in air (about 18% O₂, N₂-Bal.)

Calibration gas, Test gas, H₂S, NO₂, CO, CO₂, NH₃, H₂, SO₂, CH₄, C₂H₄, C₃H₈, C₄H₁₀, C₄H₈, C₅H₁₂, C₆H₁₄, C₇H₈, SF₆, O₂, N₂-Bal [configured]

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* Additional information

National and local regulations concerning chemicals shall be observed.

Partno. 3722019 (Testgas SF₆ 1000ppm in Air)
 Partno. 6810987 (Test gas 0.9 Vol.-% n-C₄H₁₀ in Luft / air)
 Partno. 6812784 (Test gas 1,35 Vol.-% C₂H₄ in Luft / air).
 Partno. 6810988 (Test gas 0.48 Vol.-% n-C₆H₁₄ in Luft / air).
 Partno. 6810687 (Test gas 100 ppm i-C₄H₈ in Luft / air).
 Partno. 6811629 (Test gas 100 ppm i-C₄H₈ in Luft / air).
 Partno. 6812383 (Test gas 500 ppm CO₂ in Luft / air).
 Partno. 6810391 (Test gas 2.5 Vol.-% CO₂ in Luft / air).
 Partno. 6811357 (Test gas 20 Vol.-% CO₂ in Luft / air).
 Partno. 6811117 (Test gas 50 ppm CO in Luft / air).
 Partno. 6811354 (Test gas 250 ppm CO in Luft / air).
 Partno. 6812574 (Test gas 50 ppm CO, 18 Vol.-% O₂ in N₂).
 Partno. 6812963 (Test gas 100 ppm CO, 18 Vol.-% O₂ in N₂).
 Partno. 6812104 (Test gas 2.5 Vol.-% CH₄ in Luft / air).
 Partno. 6810389 (Test gas 2 Vol.-% CH₄ in Luft / air).
 Partno. 6811116 (Test gas 2 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6812152 (Test gas 0.9 Vol.-% C₃H₈, 18 Vol.-% O₂ in N₂).
 Partno. 6812153 (Test gas 0.4 Vol.-% n-C₅H₁₂, 18 Vol.-% O₂ in N₂).
 Partno. 6812116 (Test gas 25 ppm H₂S, 100 ppm CO, 0.45 Vol.-% n-C₅H₁₂ in Luft / air).
 Partno. 6811646 (Test gas 2.2 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6811647 (Test gas 2.2 Vol.-% CH₄, 15 ppm H₂S, 18 Vol.-% O₂ in N₂).
 Partno. 6812573 (Test gas 10 ppm H₂S, 50 ppm CO, 18 Vol.-% O₂ in N₂).
 Partno. 6813098 (Test gas 25 ppm H₂S, 100 ppm CO, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6811130 (Test gas 15 ppm H₂S, 50 ppm CO, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6812375 (Test gas 15 ppm H₂S, 50 ppm CO, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6811131 (Test gas 15 ppm H₂S, 2 Vol.-% CO₂, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6812376 (Test gas 15 ppm H₂S, 2 Vol.-% CO₂, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6811132 (Test gas 15 ppm H₂S, 50 ppm CO, 2 Vol.-% CO₂, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6813099 (Test gas 5 ppm NO₂, 50 ppm CO, 2 Vol.-% CO₂, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6812377 (Test gas 15 ppm H₂S, 50 ppm CO, 2 Vol.-% CO₂, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6812778 (Test gas 15 ppm H₂S, 50 ppm CO, 2 Vol.-% CO₂, 0.4 Vol.-% C₃H₈, 18 Vol.-% O₂ in N₂).
 Partno. 6811835 (Test gas 15 ppm H₂S, 50 ppm CO, 2 Vol.-% CO₂, 0.45 Vol.-% n-C₅H₁₂, 18 Vol.-% O₂ in N₂).
 Partno. 6811905 (Test gas 50 ppm CO, 2 Vol.-% CO₂, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6813100 (Test gas 15 ppm H₂S, 50 ppm CO, 18 Vol.-% O₂ in N₂).
 Partno. 6813101 (Test gas 50 ppm NH₃, 50 ppm CO, 18 Vol.-% O₂ in N₂).
 Partno. 6813103 (Test gas 10 ppm NO₂, 50 ppm CO, 2,5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 6810761 (Test gas 0.75 Vol.-% n-C₅H₁₂ in Luft / air)..
 Partno. 6813237 (Test gas 0,6 Vol.-% C₃H₈ in Luft / air).
 Partno. 6813238 (Test gas 0,1 Vol.-% C₃H₈ in Luft / air).
 Partno. 6812389 (Test gas 0.4 Vol.-% C₃H₈ in Luft / air).
 Partno. 6812788 (Test gas 0.75 Vol.-% C₃H₈ in Luft / air).
 Partno. 6810390 (Test gas 0.9 Vol.-% C₃H₈ in Luft / air).
 Partno. 6811118 (Test gas 0.9 Vol.-% C₃H₈ in Luft / air).
 Partno. 6811952 (Test gas 5 ppm NO₂ in Luft).
 Partno. 6810388 (Test gas 2 Vol.-% H₂ in Luft / air).
 Partno. 6811955 (Test gas 1000 ppm H₂ in Luft / air).
 Partno. 3702059 (Testgas 275 ppm CO in Luft / air).
 Partno. 6813758 (Testgas 4 Vol.-% O₂ in N₂)
 Partno. 3723044 (Kalibriergas 3000 ppm i-C₄H₈ in Luft / air).
 Partno. 3723045 (Testgas 1000 ppm i-C₄H₈ in Luft / air).
 Partno. 3723046 (Testgas 50 ppm i-C₄H₈ in Luft / air).
 Partno. 3723047 (Testgas 10 ppm i-C₄H₈ in Luft / air).
 Partno. 5239069 (Testgas 0,5 Vol.-% CH₄ in Luft / air).
 Partno. 6814027 (Kalibriergas 0.75 Vol.-% n-C₅H₁₂, 50 ppm CO, 18 Vol.-%O₂ in N₂).
 Partno. 6813806 (Kalibriergas 15 ppm H₂S, 50 ppm CO, 2 Vol.-% CO₂, 0.45 Vol.-% n-C₅H₁₂, 18 Vol.-% O₂ in N₂)
 Partno. 6813759 (Kalibriergas 15 ppm H₂S, 100 ppm CO, 2.2 Vol.-% CH₄, 18 Vol.-% O₂ in N₂).
 Partno. 5239065 (Kalibriergas 0,3 Vol.-% CO₂ in Luft / air).
 Partno. 6814028 (Kalibriergas 25 ppm H₂S, 100 ppm CO, 2.5 Vol.-% CH₄, 18 Vol.-% O₂ in N₂)
 Partno. 6813685 (Kalibriergas 5 ppm i-C₄H₈ in Luft / air).
 Partno. 6814194 (Kalibriergas 25 ppm H₂S, 100 ppm CO, 1,1 Vol.-% C₃H₈, 18 Vol.-% O₂ in N₂).
 Partno. 6814195 (Kalibriergas 100 ppm CO, 18 Vol.-% O₂ in N₂).
 Partno. 6814196 (Kalibriergas 1,1 Vol.-% C₃H₈ in Luft / air).
 Partno. 6814047 (Kalibriergas 50 ppm CO, 2% CO₂, 0,4 % C₃H₈, 18 Vol.-% O₂ in N₂).
 Partno. 6814048 (Kalibriergas 2,5 ppm SO₂ in Luft / air).
 Partno. 6814049 (Kalibriergas 10 ppm SO₂ in Luft / air).
 Partno. 3701896 (Kalibriergas 1,45 Vol.-% CH₄, 20 ppm H₂S, 60 ppm CO, 15 Vol.-% O₂ in N₂).
 Partno. 3701898 (Kalibriergas 2,2 Vol.-% CH₄, 25 ppm H₂S, 100 ppm CO, 17 Vol.-% O₂ in N₂).

000090300104Kalibriergas_AU_EN various calibration gases in air (about 18% O₂, N₂-Bal.)

Calibration gas, Test gas, H₂S, NO₂, CO, CO₂, NH₃, H₂, SO₂, CH₄, C₂H₄, C₃H₈, C₄H₁₀, C₄H₈, C₅H₁₂, C₆H₁₄, C₇H₈, SF₆, O₂, N₂-Bal [configured]

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Partno. 3700107 (Kalibriergas 0,4Vol.-% C₃H₈, 15 ppm H₂S, 50 ppm CO, 2Vol.-% CO₂, 18 Vol.-% O₂ in N₂).
 Partno. 3700131 (Kalibriergas 0,4Vol.-% C₃H₈, 3Vol.-% CO₂, 1ppm H₂, 17 Vol.-% O₂ in N₂).
 Partno. 3703693 (Kalibriergas 25 ppm H₂S, 50 ppm CO, 0,9 Vol.-% C₄H₁₀ in Luft / air).
 Partno. 3310756 (Kalibriergas 25 ppm H₂S, 100 ppm CO, 1,1 Vol.-% C₃H₈ in Luft / air).
 Partno. 3702397 (Kalibriergas 100 ppm CO, 0,45 Vol.-% C₅H₁₂ in Luft / air).
 Partno. 3705969 (Kalibriergas 10 ppm i-C₄H₈, 10 ppm C₇H₈ in Luft).
 Partno. 3713477 (Prüfgas 10ppm NO₂ in Luft).
 Partno. 3713478 (Kalibriergas 10ppm NO₂, 50 pmm CO, 2,5 Vol-% CH₄, 18 Vol-% O₂ in N₂).
 Partno. 3713479 (Kalibriergas 5 ppm NO₂, 50 pmm CO, 2,0 Vol-% CO₂, 2,5 Vol-% CH₄, 18 Vol-% O₂ in N₂).
 Partno. 3713485 (Kalibriergas 1,05 Vol-% C₃H₈ in Luft / air).
 Partno. 3713486 (Kalibriergas 25 ppm H₂S, 100 pmm CO, 1,05 Vol-% C₃H₈, 19 Vol-% O₂ in N₂).
 Partno. 3713487 (Kalibriergas 25 ppm H₂S, 100 pmm CO, 1,05 Vol-% C₃H₈, 18 Vol-% O₂ in N₂).
 Partno. 3715133 (Kalibriergas 50 ppm CO, 0,45 Vol-% C₅H₁₂, 18 Vol-% O₂ in N₂).
 Partno. 3715136 (Kalibriergas 15 ppm H₂S, 50 ppm CO, 0,9 Vol-% C₃H₈, 2 Vol-% CO₂, 18 Vol-% O₂ in N₂).
 Partno. 6813696 (Kalibriergas 10 ppm SO₂, 50 ppm CO, 18 Vol-% O₂ in N₂).

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Relevant H- and EUH-phrases (Number and full text)

H220	Extremely flammable gas.
H221	Flammable gas.
H225	Highly flammable liquid and vapour.
H270	May cause or intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Indication of changes

* Data changed compared with the previous version