

Product name:	Radiometer SDS Gas 002	Page:	1/9
Supersedes date:	2021-10-04	Revision:	2022-06-01
Product No.:		SDS-ID:	EU-EN/6.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: Radiometer SDS Gas 002

Product name: 962-169 Calibration Gas Mixture for Blood Gas Analyzers - GAS 1, 10bar
962-187 Calibration Gas 1
962-188 Calibration Gas 1
962-202 Calibration Gas 1

Container size: 1 L
0,2 L(962-187)

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

Application: Gasses for Radiometer Equipment.

1.3. Details of the supplier of the safety data sheet

Manufacturer: Manufacturer:
Radiometer Medical ApS
Åkandevvej 21
DK-2700 Brønshøj, DENMARK
Tel:+45 3827 3827
www.radiometer.com

Responsible for safety data sheet authoring: environment@radiometer.com

1.4. Emergency telephone number

Emergency telephone: Call a Poison Center, emergency number or doctor/physician. National Poison Control Centres are available in Member Countries.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP: Aerosol 3;H229

References: The full text for all hazard statements is displayed in section 16.

2.2. Label elements

Signal word Warning

H229 Pressurised container: May burst if heated.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 Do not pierce or burn, even after use.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other: In high concentrations: May be harmful if inhaled.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The product contains: Gas.

CLP:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
70-90	7727-37-9	231-783-9	-	Nitrogen	Press. Gas, Compressed;H280	
10-21	7782-44-7	231-956-9	-	Oxygen	Ox. Gas 1;H270 Press. Gas	U
5-12	124-38-9	204-696-9	-	Carbon dioxide	Press. Gas, Compressed;H280	#

Notes: #: The substance has been assigned an exposure limit.

References: The full text for all hazard statements is displayed in section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: Move the exposed person to fresh air at once.
Skin contact: No specific first aid measures noted.
Eye contact: No specific first aid measures noted.
Ingestion: Not likely, due to the form of the product. No specific first aid measures noted.

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

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

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

Medical attention/treatments: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Specific hazards: Containers can burst violently when heated, due to excess pressure build-up.

5.3. Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.

Personal precautions: In case of inadequate ventilation, use respiratory protection.

6.2. Environmental precautions

Environmental precautions: Not relevant considering the small amounts used.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Allow to evaporate. Provide good ventilation.

6.4. Reference to other sections

References: For personal protection, see section 8.
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice: Observe good laboratory/industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool and well-ventilated place. See storage temperature on the product label. Do not store near heat sources or expose to high temperatures. Protect against direct sunlight.

7.3. Specific end use(s)

Specific use(s): Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
124-38-9	Carbon dioxide	-	5000 ppm 9000 mg/m3	-	-	EC

Notes: EC: Commission Directives 2009/148/EC, 2004/37/EC, 2000/39/EC and 91/322/EEC, with amendments.

8.2. Exposure controls

Engineering measures: Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation.

Personal protection: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation, use air-supplied full-mask.

Environmental Exposure Controls: Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<u>Physical state:</u>	Aerosol.
<u>Colour:</u>	Colourless.
<u>Odour:</u>	Pungent.
<u>Odour threshold:</u>	Not available.
<u>pH:</u>	Not applicable.
<u>Melting point / freezing point:</u>	Not applicable.
<u>Boiling point:</u>	Not available.
<u>Flash point:</u>	Not applicable.
<u>Evaporation rate:</u>	Not applicable.
<u>Explosion limits:</u>	Not available.
<u>Vapour pressure:</u>	Not available.
<u>Vapour density:</u>	Not available.
<u>Relative density:</u>	Not available.
<u>Solubility:</u>	Not available.
<u>Partition coefficient (n-octanol/water):</u>	Not available.
<u>Auto-ignition temperature (°C):</u>	Not available.
<u>Decomposition temperature (°C):</u>	Not available.
<u>Viscosity:</u>	Not available.
<u>Oxidising properties:</u>	Not available.

9.2. Other information

<u>Other data:</u>	Not relevant. Not available.
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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Not known.

10.2. Chemical stability

Stability: Stable.

10.3. Possibility of hazardous reactions

Hazardous Reactions: Not available.

10.4. Conditions to avoid

Conditions/materials to avoid: Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Incompatible materials: Not known.

10.6. Hazardous decomposition products

Hazardous decomposition products: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity (Oral): Based on available data, the classification criteria are not met.

Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.

Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

STOT - Single exposure: Based on available data, the classification criteria are not met.

STOT - Repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: In high concentrations: Laboured breathing, perspiration, severe breathing difficulties, headache and dizziness.

Skin contact: Not relevant.

Eye contact: Not relevant.

Ingestion: Not likely, due to the form of the product.

11.2. Information on other hazards

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity: Not classified as dangerous to the environment.

12.2. Persistence and degradability

Degradability: Not relevant.

12.3. Bioaccumulative potential

Bioaccumulative potential: Will not bio-accumulate.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

12.7. Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Make sure containers are empty before discarding (explosion risk). Do not puncture or incinerate even when empty.

Empty packaging: EWC-code: 15 01 04

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SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN-No: 2037

14.2. UN proper shipping name

Proper Shipping Name: RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)

14.3. Transport hazard class(es)

Class: 2

14.4. Packing group

PG: -

14.5. Environmental hazards

Marine pollutant: No.

Environmentally Hazardous substance: No.

14.6. Special precautions for user

Special precautions: None known.

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

Transport in bulk: Not relevant.

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SECTION 15: REGULATORY INFORMATION

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

National regulation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, with amendments.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work, with amendments.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, with amendments.

Commission Directive 91/322/EEC of 29 May 1991 on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work, with amendments.

Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work, with amendments.

Directive 2009/148/EC of the European Parliament and of the Council of 30 November 2009 on the protection of workers from the risks related to exposure to asbestos at work, with amendments.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, with amendments.

2014/955/EC: Commission Decision of 18 December 2014 amending Decision 2000/532/EC as regards the list of wastes.

15.2. Chemical Safety Assessment

CSA status: No chemical safety assessment has been carried out.

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SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 1, 2, 9, 16.

This SDS refers to the following internal drawings:

962-169: A4-28931 rev 7

962-187: A4-33585 rev 3

962-188: A4-33585 rev 7

962-202: A4-33585 rev 7

Abbreviations and acronyms used in the safety data sheet: CSA = Chemical Safety Assessment.
PBT = Persistent, Bioaccumulative and Toxic.
STOT = Specific Target Organ Toxicity.
vPvB = very Persistent and very Bioaccumulative.

Additional information: Classification according to Regulation (EC) No. 1272/2008: Expert judgement.

Wording of H-statements:

H229	Pressurised container: May burst if heated.
H270	May cause or intensify fire; oxidizer.
H280	Contains gas under pressure; may explode if heated.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.
www.dhigroup.com.
