

Name: Radiometer SDS M3 037 Page: 1/10
Supersedes date: 2013-03-01 Revision: 2015-04-16
Product No.: SDS-ID: GB-EN/3.0

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

1.1. Product identifier

Name: Radiometer SDS M3 037

Product name: ABL90 FLEX Solution Pack -including:
944-157 ABL90 FLEX Solution pack
944-197 Solution Pack SP90 RDEU
944-457 SOLUTION PACK High Volume
944-497 SOLUTION PACK High Volume RDEU

Container size: Cassette containing bags.

Bag 1: Gas.: 150 ml (760 mmHg / 25°C)

Bags 2-7: Liquid.: 2 x 200 ml, 4 x 100 ml
Bags 2-7: Liquid.: 1 x 270 ml, 1 x 280 ml, 4 x 100 ml

Bag 8: Waste container

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

Application: Chemicals for Radiometer Equipment.

1.3. Details of the supplier of the safety data sheet

Supplier: Radiometer Ltd.
Manor Court
Manor Royal, Crawley
Crawley, West Sussex RH10 9FY
Tel: +44 (0) 1293 517599
www.radiometer.co.uk

Manufacturer Radiometer Medical ApS
Åkandevvej 21
DK-2700 Brønshøj, DENMARK
Tel: +45 3827 2853
Tel: +45 3827 2828
www.radiometer.com

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

1.4. Emergency telephone number

Emergency telephone: +44 1293 517599

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Due to the design of the product, exposure is likely to be brief and in small quantities.

67/548/EEC / 1999/45/EC: Bag 1: The product is classified: O;R8
Bags 2-7: The product is not classified.

CLP: Bag 1: The product is classified: Ox. Gas 1;H270
Bags 2-7: The product is not classified.

2.2. Label elements

Bag 1:



Signal word

Danger

H270

May cause or intensify fire; oxidiser.

P220

Keep/Store away from clothing/combustible materials.

Bags 2-7:

The substance/mixture does not meet the criteria for classification, but the following labelling must be applied:

Safety data sheet available on request.

2.3. Other hazards

PBT/vPvB: Not relevant.

Other: Bag 1: In high concentrations: May be harmful if inhaled.

Bags 2-7: The hazardous properties of the product are considered limited. However, the product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Bag 1: The product contains: Gas.

Bags 2-7: The product contains: water, salts, additives and preservative.

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Bag 1:

67/548/EEC:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH</u> <u>Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
50-55	7727-37-9	231-783-9	-	Nitrogen	-	
40-45	7782-44-7	231-956-9	-	Oxygen	O;R8	
3-7	124-38-9	204-696-9	-	Carbon dioxide	-	OEL

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

CLP:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH</u> <u>Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
50-55	7727-37-9	231-783-9	-	Nitrogen	Press. Gas;H280	
40-45	7782-44-7	231-956-9	-	Oxygen	Ox. Gas 1;H270 Press. Gas	U
3-7	124-38-9	204-696-9	-	Carbon dioxide	Press. Gas;H280	

Bags 2-7:

67/548/EEC:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH</u> <u>Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
1-<3	1132-61-2	214-478-5	-	4-Morpholinopropane-sulphonic acid	Xi;R36/37/38	
<0,06	2682-20-4	220-239-6	-	2-Methyl-2H-isothiazol-3-one	T;R24/25 C;R34 Xi;R37 R43 N;R50	

CLP:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH</u> <u>Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
1-<3	1132-61-2	214-478-5	-	4-Morpholinopropane-sulphonic acid	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335	
<0,06	2682-20-4	220-239-6	-	2-Methyl-2H-isothiazol-3-one	Acute Tox. 2;H330 Acute Tox. 3;H301 Acute Tox. 3;H311 Skin Corr. 1B;H314 Eye Dam. 1;H318 Skin Sens. 1A;H317 Repr. 2;H361d STOT SE 3;H335 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	

References: The full text for all R-phrases and hazard statements are displayed in section 16.

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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Not relevant during normal use. In case of breakage of the packaging:

Inhalation: Move into fresh air and keep at rest.

Skin contact: Wash skin thoroughly with soap and water. In case of eczema or other skin disorders: Seek medical attention and bring these instructions.

Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

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: None known.

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: Bag 1: May cause or intensify fire; oxidiser. Considering the size of the packaging, the risk is regarded as minimal.

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Collect in containers and seal securely.

6.4. Reference to other sections

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

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice: No special precautions when handling undamaged units.
Damaged units: Avoid contact with skin and eyes.

When product is in use it will contain human blood. Observe routine biosafety procedures in handling the product and consider all materials as potentially infectious.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions.

Storage conditions: See storage temperature on the product label.

7.3. Specific end use(s)

Specific use(s): Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Bag 1:

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	9150 mg/m3	TWA	-	EH40
		-	15000 ppm	27400 mg/m3	STEL	15min	

8.2. Exposure controls

Engineering measures: Provide adequate ventilation.

Bag 1: Observe occupational exposure limits and minimise the risk of inhalation.

NOTE: Due to the small packaging the risk of inhalation is minimal.

Personal protection: Contact with the product is not likely when used according to directions.

Respiratory equipment: No special precautions. Due to the small packaging the risk of inhalation is minimal.

Hand protection: In case of contact with spilled product: Wear protective gloves. Nitrile gloves are recommended.

Eye protection: Risk of splashes: Wear goggles/face shield.

Hygiene measures: Wash hands after contact.

Environmental Exposure Controls: Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Bag 1: Cassette containing bags.
(Gas.)
Bags 2-7: Cassette containing bags.
(Liquid.)

Odour: Bag 1: Pungent.
Bags 2-7: Odourless.

pH: Bag 1: -
Bags 2-7: 6,8-7,5

Boiling point: Bag 1: -
Bags 2-7: approx. 100°C

Solubility: Bag 1: Slightly soluble in water.
Bags 2-7: Completely soluble in water.

9.2. Other information

Other data: Not relevant.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Not known.

10.2. Chemical stability

Stability: Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Hazardous Reactions: None known.

10.4. Conditions to avoid

Conditions/materials to avoid: Keep away from heat, sparks and open flame.

10.5. Incompatible materials

Incompatible materials: Not relevant.

10.6. Hazardous decomposition products

Hazardous decomposition products: None in particular.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Not relevant during normal use. In case of breakage of the packaging:

<u>Inhalation:</u>	Bag 1: In high concentrations: May be harmful if inhaled. Bags 2-7: Aerosols may irritate the respiratory system.
<u>Skin contact:</u>	Bag 1: - Bags 2-7: Liquid may irritate the skin.
<u>Eye contact:</u>	Bag 1: - Bags 2-7: Splashes may irritate.
<u>Ingestion:</u>	Bag 1: - Bags 2-7: May irritate and cause malaise.
<u>Specific effects:</u>	Bag 1: - Bags 2-7: The product contains very small amounts of Isothiazolone which may provoke an allergic reaction among sensitive individuals.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity: The harmful effects of the product in the environment are considered to be limited.

12.2. Persistence and degradability

Degradability: The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB: Not relevant.

12.6. Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. It is the responsibility of the waste producer to classify the waste correctly according to knowledge of patients and legislation.
NOTE: When product is in use it will contain human blood. Observe routine biosafety procedures in handling the product and consider all materials as potentially infectious unless proven non-infectious.

Waste from residues: EWC-code: 16 05 06 (or 18 01 03 / 18 01 04)

Contaminated packaging: Dispose of contaminated packings as residue.

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SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

UN-No: -

14.2. UN proper shipping name

Proper Shipping Name: -

14.3. Transport hazard class(es)

Class: -

14.4. Packing group

PG: -

14.5. Environmental hazards

Marine pollutant: -

Environmentally Hazardous substance: -

14.6. Special precautions for user

Special precautions: None known.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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.

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

Directive 98/79/EC of the European Parliament and of the Council of 27 October 1998 on in vitro diagnostic medical devices.

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents.

EH40/2005, Workplace exposure limits 2005, with amendments.

The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

15.2. Chemical Safety Assessment

CSA status: Not relevant.

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-A, 2-A, 3-B, 16.

This SDS refers to the following internal drawings:

Bag 1 (Gas.):
Gas: A4-34698 rev 15
Bags 2-7 (Liquid.):
Cal1: A4-34694 rev 20
Cal2: A4-34699 rev 16
Cal3: A4-35339 rev 13
QC1: A4-34695 rev 20
QC2: A4-34696 rev 20
QC3: A4-34697 rev 25

Additional information: Classification according to Regulation (EC) No. 1272/2008:
Health Hazards: Calculation method.
Physical Hazards: Expert judgement.

Wording of
R-phrases/H-statements:

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R24/25	Toxic in contact with skin and if swallowed.
R34	Causes burns.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R43	May cause sensitisation by skin contact.
R50	Very toxic to aquatic organisms.
R8	Contact with combustible material may cause fire.
H270	May cause or intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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.
