

SAFETY DATA SHEET

Product name:	Radiometer SDS M3 035	Page:	1/11
Supersedes date:	2020-04-28	Revision:	2021-10-18
Product No.:		SDS-ID:	EU-EN/5.0

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

1.1. Product identifier

Product name: Radiometer SDS M3 035

Product name: 905-843 Cleaning Solution Tubes
943-906 S5362 Hypochlorite Solution

Container size: -

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

Manufacturer: Radiometer Medical ApS
Åkandevvej 21
2700 Brønshøj
Denmark
Tel: +45 3827 3827
www.radiometer.com

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

1.4. Emergency telephone number

Emergency telephone: Poison Control Centers may be available in specific member countries.

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP: Skin Corr. 1B;H314 - Eye Dam. 1;H318 - Aquatic Acute 1;H400 - Aquatic Chronic 2;H411

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

2.2. Label elements



Signal word

Danger

Contains:

Sodium hypochlorite

H314

Causes severe skin burns and eye damage.

H400

Very toxic to aquatic life.

H411

Toxic to aquatic life with long lasting effects.

P280

Wear protective clothing, gloves, eye and face protection.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER/doctor.

P273

Avoid release to the environment.

Contact with acids liberates toxic gas.

2.3. Other hazards

PBT/vPvB:

This product does not contain any PBT or vPvB substances.

Other:

Warning! Do not use together with other products. May release dangerous gases (chlorine).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The product contains: water and Sodium hypochlorite.

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>
3-5	7681-52-9	231-668-3	-	Sodium hypochlorite	Skin Corr. 1B;H314 Eye Dam. 1;H318 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 EUH031	B

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<u>Chemical name:</u>	<u>SCL</u>	<u>M (ac)</u>	<u>M (chr)</u>
Sodium hypochlorite	EUH031: C ≥ 5 %	10	1
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 into fresh air and keep at rest.

Skin contact: Remove contaminated clothing and flush with plenty of water until pain disappears. If discomfort persists transport to hospital and bring these instructions.

Eye contact: Immediately flush with plenty of water. Remove any contact lenses and open eyelids widely. Call an ambulance. Continue flushing during transport to hospital. Bring along these instructions.

Ingestion: Immediately rinse mouth and drink water (max 200 ml). Do not induce vomiting. Call a Poison Center/doctor. Have these instructions at hand.

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

Symptoms/effects: Skin contact: Chemical burns.
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. Splash in eye requires examination by eye specialist.

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: When heated and in case of fire, corrosive vapours/gases may be formed.

5.3. Advice for firefighters

Water used for fire extinguishing, which has been in contact with the product, may be corrosive.

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

Personal precautions: Avoid inhalation of vapours and contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet. Do not mix with acids.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Absorb spillage with suitable absorbing material.

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: Avoid inhalation of vapours and contact with skin and eyes.
Warning! Do not use together with other products. May release dangerous gases (chlorine).

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: See storage temperature on the product label.

7.3. Specific end use(s)

Specific use(s): Not relevant.

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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>
-	Chlorine	-	0.5 ppm 1.5 mg/m3	-	15min	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 of vapours.

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: No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. Use respiratory equipment with gas filter, type B.

Hand protection: Nitrile gloves are recommended.
Thickness: $\geq 0,11$ mm. Breakthrough time: > 480 min.
The most suitable glove must be chosen in collaboration with the supplier of gloves, who can inform about the breakthrough time of the glove material.

Eye protection: 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

<u>Physical state:</u>	Clear, yellowish liquid.
<u>Odour:</u>	Slightly of chlorine
<u>Odour threshold:</u>	Not available.
<u>pH:</u>	12
<u>Melting point / freezing point:</u>	Not available.
<u>Boiling point:</u>	100°C
<u>Flash point:</u>	Not available.
<u>Evaporation rate:</u>	Not available.
<u>Explosion limits:</u>	Not available.
<u>Vapour pressure:</u>	Not available.
<u>Vapour density:</u>	Not available.
<u>Relative density:</u>	approx. 1
<u>Solubility:</u>	Completely soluble in water.
<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>Explosive properties:</u>	Not relevant.
<u>Oxidising properties:</u>	Not available.

9.2. Other information

<u>Other data:</u>	Not relevant.
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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: Generates toxic gas in contact with acid.

10.4. Conditions to avoid

Conditions/materials to avoid: Warning! Do not use together with other products. May release dangerous gases (chlorine).

10.5. Incompatible materials

Incompatible materials: Avoid contact with acids and oxidising substances.

10.6. Hazardous decomposition products

Hazardous decomposition products: Toxic gases/vapours/fumes of: Chlorine.

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: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

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: Vapours may irritate throat and respiratory system and cause coughing.

Skin contact: Corrosive. Prolonged contact causes serious tissue damage.

Eye contact: Splashes may cause serious eye damage.

Ingestion: Corrosive. Even small amounts may cause serious damage.

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: Very toxic to aquatic life with long lasting effects.

Sodium hypochlorite:
M-factor (acute): 10
M-factor (chronic): 1

12.2. Persistence and degradability

Degradability: The product is expected to be biodegradable.

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

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste.

Waste from residues: EWC-code: 16 05 07

Contaminated packaging: Dispose of contaminated packings as residue.

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SECTION 14: TRANSPORT INFORMATION

The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/AND/RID).

14.1. UN number

UN-No: 1791

14.2. UN proper shipping name

Proper Shipping Name: HYPOCHLORITE SOLUTION

14.3. Transport hazard class(es)

Class: 8

14.4. Packing group

PG: III

14.5. Environmental hazards

Marine pollutant: Yes.

Environmentally Hazardous substance: Yes.

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: This product is not intended for transport in bulk.

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SECTION 15: REGULATORY INFORMATION

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

Special provisions: As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

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.

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, 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.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people 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. For restrictions on use see section 15.

The following sections contain revisions or new statements: 1, 2, 3, 5, 8, 11, 12, 14, 16.

This SDS refers to the following internal drawings:

905-843: A4-36509 rev 7

943-906: A4-22321 rev 13

Abbreviations and acronyms used in the safety data sheet: CSA = Chemical Safety Assessment.
M(ac) = M-factor acute toxicity.
M(chr) = M-factor chronic toxicity.
PBT = Persistent, Bioaccumulative and Toxic.
SCL = Specific Concentration Limit.
STOT = Specific Target Organ Toxicity.
vPvB = very Persistent and very Bioaccumulative.

Additional information: Classification according to Regulation (EC) No. 1272/2008: The classification as corrosive has been made based on the pH value of the product.

Wording of H-statements:

EUH031	Contact with acids liberates toxic gas.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	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.
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