

Issuing Date: 04-Jan-2023

Revision Date: 04-Jan-2023

1. Identification**Product identifier**

SDS Number: 1277745
Product Name: Ringer's Solution

Other means of identification

Product Code(s): AHB2304, AHF7163, AHF7164

Synonyms: Ringer's Injection
Ringer's Solution for Irrigation

Recommended use of the chemical and restrictions on use

Product Use: Pharmaceutical.
Product Type: Injectable solution
Uses advised against: No information available

Details of the supplier of the safety data sheet

BAXTER HEALTHCARE
33 Vestey Drive
Mt Wellington Auckland, 1060 New Zealand
Telephone: (09) 574 2400

Emergency telephone number

New Zealand: 0800 229 837 and Poison Information Centre 0800 764 766
Verisk 3E Global Incident Response Hotline +1 760 476 3962; Access Code 335625

2. Hazard(s) identification**GHS Classification**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Label elements**Hazard statements****Other hazards which do not result in classification**

No information available

3. Composition/information on ingredients

Chemical Name	CAS No.	Weight-%
Sodium Chloride 7647-14-5	7647-14-5	<1
Calcium Chloride, Dihydrate 10035-04-8	10035-04-8	<0.01
Potassium Chloride 7447-40-7	7447-40-7	<0.01

Water 7732-18-5	7732-18-5	>99
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4. First-aid measures

Description of first aid measures

General Advice	Treat symptomatically and supportively.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
Eye contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops.
Skin contact:	In case of contact, immediately flush skin with plenty of water. Get medical attention if irritation develops.
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

Most important symptoms and effects, both acute and delayed

No information available

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. See patient package insert in shipping carton for complete information.

5. Fire-fighting measures

Suitable Extinguishing Media

Water

Specific hazards arising from the chemical

No information available

Special protective actions for fire-fighters

Fire fighters should wear proper protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).

Environmental precautions

See Section 12 for environmental precautions.

Methods and material for containment and cleaning up

Methods for Containment:

If emergency personnel are unavailable, contain spilled material.

Methods for cleaning up:

For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Precautions for safe handling

Technical measures/precautions: None

Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions: Keep containers tightly closed in a cool, well-ventilated place. Store below 30°C (86°F). Avoid excessive heat.

Incompatible materials: No information available

8. Exposure controls/personal protection

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	New Zealand TWA	ACGIH TLV	Uk oes/mel:	Australia_nohsc :
Sodium Chloride - 7647-14-5	-	-	-	-
Calcium Chloride, Dihydrate - 10035-04-8	-	-	-	-
Potassium Chloride - 7447-40-7	-	-	-	-
Water - 7732-18-5	-	-	-	-

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Chemical Name	New Zealand	ACGIH
Sodium Chloride - 7647-14-5	-	-
Calcium Chloride, Dihydrate - 10035-04-8	-	-
Potassium Chloride - 7447-40-7	-	-
Water - 7732-18-5	-	-

Appropriate engineering controls

Engineering Measures No special containment is required.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required

Hand protection Not required.

Skin and body protection Not required.

Respiratory protection No personal respiratory protective equipment normally required.

Environmental exposure controls No information available.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Aqueous solution.
Color:	Clear, Colorless.
Odor:	No information available
Odor Threshold:	No information available
pH:	5.0 - 7.5
Melting point / melting range:	No information available
Boiling point / boiling range:	No information available
Flash point:	No information available
Evaporation rate:	No information available
Flammability (solid, gas):	No information available
Flammable limits	No information available
in air-upper (%):	
Flammable limits	No information available
in air-lower (%):	
Vapor pressure:	No information available
Vapor density	No information available
Density:	No information available
Solubility:	Soluble in water.
Partition coefficient	No information available
(n-octanol/water):	
Autoignition temperature:	No information available
Decomposition temperature	No information available
Viscosity:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available

Other information

10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions

Specific methods:

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

Possibility of hazardous reactions

None under normal use conditions

Conditions to Avoid

Avoid excessive heat.

Incompatible materials

No data available

Hazardous decomposition products

No data available

11. Toxicological information

Acute toxicity**Information on likely routes of exposure****Product Information**

Inhalation: Inhalation not likely under normal use conditions.

Eye contact: Not expected to cause eye irritation.

Skin contact: Not expected to cause skin irritation.

Ingestion: Not expected to be hazardous by ingestion.

Symptoms: No information available

Acute Toxicity**Numerical measures of toxicity****Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Chloride 7647-14-5	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	42 g/m ³ 1 h (Rat)
Calcium Chloride, Dihydrate 10035-04-8	-	-	-
Potassium Chloride 7447-40-7	= 2600 mg/kg (Rat)	-	-
Water 7732-18-5	> 90 mL/kg (Rat)	-	-

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity: Not classified.

Irritation: Not classified.

Sensitization: Not classified.

Mutagenic effects: Not classified.

Carcinogenic effects: Not classified.

Chemical Name	New Zealand	IARC
Sodium Chloride - 7647-14-5	-	-
Calcium Chloride, Dihydrate - 10035-04-8	-	-
Potassium Chloride - 7447-40-7	-	-
Water - 7732-18-5	-	-

Reproductive toxicity: Not classified.

STOT - single exposure: Not classified.
Respiratory irritation Not classified.
Narcotic effects Not classified.

STOT - repeated exposure: Not classified.

Aspiration hazard: Not classified.

12. Ecological information

Ecotoxicity

No information available

Aquatic ecotoxicity

Unknown aquatic toxicity 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Chloride 7647-14-5	-	5560 - 6080: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 12946: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 6020 - 7070: 96 h <i>Pimephales promelas</i> mg/L LC50 static 7050: 96 h <i>Pimephales promelas</i> mg/L LC50 semi-static 6420 - 6700: 96 h <i>Pimephales promelas</i> mg/L LC50 static 4747 - 7824: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through	1000: 48 h <i>Daphnia magna</i> mg/L EC50 340.7 - 469.2: 48 h <i>Daphnia magna</i> mg/L EC50 Static
Calcium Chloride, Dihydrate 10035-04-8	-	-	-
Potassium Chloride 7447-40-7	2500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	1060: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 750 - 1020: 96 h <i>Pimephales promelas</i> mg/L LC50 static	825: 48 h <i>Daphnia magna</i> mg/L EC50 83: 48 h <i>Daphnia magna</i> mg/L EC50 Static
Water 7732-18-5	-	-	-

Terrestrial ecotoxicity

Chemical Name	Earthworm	Avian	Honeybees
Sodium Chloride 7647-14-5	Acute Toxicity: LC50 0.1 - 1 mg/cm ² (<i>Eisenia foetida</i> , 48 h filter paper)	-	-
Calcium Chloride, Dihydrate 10035-04-8	-	-	-
Potassium Chloride 7447-40-7	-	-	-
Water 7732-18-5	-	-	-

Persistence and Degradability

No information available.

Bioaccumulative potential

No information available.

Chemical Name	Partition coefficient
Sodium Chloride 7647-14-5	-
Calcium Chloride, Dihydrate 10035-04-8	-
Potassium Chloride 7447-40-7	-

Water 7732-18-5	-
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Mobility in soil

No information available

Other adverse effects

This product does not contain any known or suspected endocrine disruptors.

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Endocrine disrupting potential
Sodium Chloride 7647-14-5	-	-	-
Calcium Chloride, Dihydrate 10035-04-8	-	-	-
Potassium Chloride 7447-40-7	-	-	-
Water 7732-18-5	-	-	-

13. Disposal considerations

Waste treatment methods**Waste from residues/unused products**

In accordance with local and national regulations

Contaminated Packaging

In accordance with local and national regulations

14. Transport information

IATA

Not regulated

IMDG

Not regulated

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

No information available

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture**New Zealand****National regulations**

See Section 8 for any applicable tolerable exposure limits and environmental exposure limits

Certified handlers, tracking and controlled substance licence requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance licence, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information.

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.

Controlled substance licences are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at

Work Regulation 2017 for more information.

Chemical Name	New Zealand - GHS Classifications - HSNO Chemical Classification Information Database (CCID)
Sodium Chloride - 7647-14-5	HSR002722 6.1E (All), 6.1E (O), 6.4A
Calcium Chloride, Dihydrate - 10035-04-8	HSR003217 6.1D (All), 6.1D (O), 6.3A, 6.4A, 9.3C 6.1E (All), 6.1E (O), 6.3A, 6.4A
Potassium Chloride - 7447-40-7	HSR003261 6.1D (All), 6.1D (O), 6.3B, 6.4A, 9.3B 6.1E (All), 6.1E (O), 6.3B, 6.4A, 9.3B 6.1E (All), 6.1E (O), 6.3B, 6.4A, 9.3C

International Inventories

NZIOC	Complies
TSCA	Does not comply
DSL/NDL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

NZIOC - New Zealand Inventory of Chemicals and Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. Other information

Prepared by: Baxter Research & Development
Issuing Date: 04-Jan-2023
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Revision Note:
 New GHS format.

Key or legend to abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value
*	Skin designation
C	Carcinogen

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Disclaimer

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End of Safety Data Sheet