



# Phebra Pty Ltd

Chemwatch Hazard Alert Code: 0

Chemwatch: **26-5939** Version No: **3.1** Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements Issue Date: 01/11/2019 Print Date: 30/08/2022 S.GHS.AUS.EN

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

#### **Product Identifier**

Product name	Sodium Chloride 0.9% (Normal Saline) Sterile Injection
Chemical Name	Not Applicable
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses	Sodium Chloride 0.9% Injection can be used as the vehicle for many parenteral drugs and as an electrolyte replenisher for maintenance or replacement of deficits of extracellular fluid. It can also be used as a sterile irrigation medium.
--------------------------	--

# Details of the supplier of the safety data sheet

Registered company name	Phebra
Address	17-19 Orion Road Lane Cove West NSW 2066 Australia
Telephone	+61 2 9420 9199 1800 720 020
Fax	+61 2 9420 9177
Website	www.phebra.com
Email	msds@phebra.com

#### Emergency telephone number

Association / Organisation	Phebra	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	+61 401 264 004	+61 1800 951 288
Other emergency telephone numbers	N/A	+61 3 9573 3188

#### Once connected and if the message is not in your preferred language then please dial 01

## **SECTION 2 Hazards identification**

# Classification of the substance or mixture Poisons Schedule Not Applicable Classification [1] Not Applicable

## Label elements

Hazard pictogram(s) Not Applicable

Signal word Not Applicable

#### Hazard statement(s)

Not Applicable

## Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage Not Applicable

## Precautionary statement(s) Disposal

Not Applicable

Continued...

# Sodium Chloride 0.9% (Normal Saline) Sterile Injection

Not Applicable

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

## Substances

See section below for composition of Mixtures

#### Mixtures

CAS No	%[weight]	Name
7647-14-5	0.9	Sodium Chloride
7732-18-5	99.1	water
Legend:	gend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

## **SECTION 4 First aid measures**

Description of first aid measures	
Eye Contact	<ul> <li>If this product comes in contact with eyes:</li> <li>Wash out immediately with water.</li> <li>If irritation continues, seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	If skin or hair contact occurs: ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	<ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

## Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## **SECTION 5 Firefighting measures**

#### Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

#### Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
A duine for firefieldere	
Advice for firefighters	
	Alert Fire Brigade and tell them location and nature of hazard.
	Wear breathing apparatus plus protective gloves in the event of a fire.
	Prevent, by any means available, spillage from entering drains or water courses.
Fire Fighting	Use fire fighting procedures suitable for surrounding area.

HAZCHEM	Not Applicable
Fire/Explosion Hazard	<ul> <li>Non combustible.</li> <li>Not considered a significant fire risk, however containers may burn.</li> </ul>
	<ul> <li>DO NOT approach containers suspected to be not.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> <li>Equipment should be thoroughly decontaminated after use.</li> </ul>

# SECTION 6 Accidental release measures

## Personal precautions, protective equipment and emergency procedures

See section 8

## **Environmental precautions**

See section 12

## Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>Wipe up.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard.

Control personal contact with the substance, by using protective equipment as required.
Prevent spillage from entering drains or water ways.
Contain spill with sand, earth or vermiculite.
Collect recoverable product into labelled containers for recycling.
Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

# **SECTION 7 Handling and storage**

Precautions for safe handling	
Safe handling	<ul> <li>Limit all unnecessary personal contact.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Avoid contact with incompatible materials.</li> <li>When handling, DO NOT eat, drink or smoke.</li> <li>Keep containers securely sealed when not in use.</li> <li>Avoid physical damage to containers.</li> <li>Always wash hands with soap and water after handling.</li> </ul>
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>No smoking, naked lights or ignition sources.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> <li>Protect containers against physical damage and check regularly for leaks.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>

#### Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> <li>Glass container is suitable for laboratory quantities</li> </ul>
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed. None known

# **SECTION 8 Exposure controls / personal protection**

# Control parameters

#### Occupational Exposure Limits (OEL)

INGREDIENT DATA

#### Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
Sodium Chloride	0.5 ppm	2 ppm		20 ppm
Ingredient	Original IDLH		Revised IDLH	
Sodium Chloride	Not Available		Not Available	
water	Not Available		Not Available	

#### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
Sodium Chloride	E	≤ 0.01 mg/m³
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

## Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. General exhaust is adequate under normal operating conditions.
Personal protection	

## Issue Date: 01/11/2019 Print Date: 30/08/2022

## Sodium Chloride 0.9% (Normal Saline) Sterile Injection

Eye and face protection	<ul> <li>Safety glasses with side shields</li> <li>Chemical goggles.</li> <li>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	Wear general protective gloves, eg. light weight rubber gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. OTHERWISE: • Overalls. • Barrier cream. • Eyewash unit.

#### Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index". The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

Sodium Chloride 0.9% (Normal Saline) Sterile Injection

Material	CPI
BUTYL	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NITRILE	С
PVA	С
VITON	С

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

 $\ensuremath{\text{NOTE}}$ : As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

#### **SECTION 9** Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance Sodium Chloride 0.9% Sterile Injection is a clear, colourless solution; mixes with water.

	1		1
Physical state	Liquid	Relative density (Water = 1)	1.00
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	4.5-7	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available

#### Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	-AUS / Class1 P2	-
up to 50	1000	-	-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	-2 P2
up to 100	10000	-	-3 P2
100+			Airline**

\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (Not Available%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

# **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

# **SECTION 11 Toxicological information**

# Information on toxicological effects

Inhaled	, o i	ects or irritation of the respiratory tract (as classified by EC Directives using animal at exposure be kept to a minimum and that suitable control measures be used in an		
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.			
Skin Contact	, o i	ects or skin irritation following contact (as classified by EC Directives using animal at exposure be kept to a minimum and that suitable gloves be used in an occupationa		
Eye	Although the liquid is not thought to be an irritant (as class characterised by tearing or conjunctival redness (as with v	sified by EC Directives), direct contact with the eye may produce transient discomfort vindburn).		
Chronic	Long-term exposure to the product is not thought to produ models); nevertheless exposure by all routes should be m	ce chronic effects adverse to the health (as classified by EC Directives using animal inimised as a matter of course.		
Sodium Chloride 0.9%	τοχιςιτγ	IRRITATION		
(Normal Saline) Sterile Injection	Not Available	Not Available		
	тохісіту	IRRITATION		
	Dermal (rabbit) LD50: >10000 mg/kg <sup>[1]</sup>	Eye (rabbit): 10 mg - moderate		
Sodium Chloride	Inhalation(Rat) LC50; >10.5 mg/l4h <sup>[1]</sup>	Eye (rabbit):100 mg/24h - moderate		
	Oral (Rat) LD50; 3000 mg/kg <sup>[2]</sup>	Skin (rabbit): 500 mg/24h - mild		
	ΤΟΧΙΟΙΤΥ	IRRITATION		
water	Oral (Rat) LD50; >90000 mg/kg <sup>[2]</sup>	Not Available		

 I. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

SODIUM CHLORIDE	Asthma-like symptoms may continue for months or ev known as reactive airways dysfunction syndrome (RA criteria for diagnosing RADS include the absence of p asthma-like symptoms within minutes to hours of a do airflow pattern on lung function tests, moderate to sev lymphocytic inflammation, without eosinophilia. RADS the concentration of and duration of exposure to the ir result of exposure due to high concentrations of irritati disorder is characterized by difficulty breathing, cough The material may produce moderate eye irritation lead conjunctivitis. The material may cause skin irritation after prolonged vesicles, scaling and thickening of the skin.	DS) which can occur after exposure to revious airways disease in a non-atop cumented exposure to the irritant. Oth ere bronchial hyperreactivity on meth (or asthma) following an irritating inh ritating substance. On the other hand ing substance (often particles) and is and mucus production. ding to inflammation. Repeated or pro	o high levels of highly irritating compound. Main bic individual, with sudden onset of persistent her criteria for diagnosis of RADS include a reversible acholine challenge testing, and the lack of minimal alation is an infrequent disorder with rates related to , industrial bronchitis is a disorder that occurs as a completely reversible after exposure ceases. The
Sodium Chloride 0.9% (Normal Saline) Sterile Injection & WATER	No significant acute toxicological data identified in liter	rature search.	
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

Legena:

🗶 – Data either not available or does not till the criteria for classification

Data available to make classification

# **SECTION 12 Ecological information**

Sodium Chloride 0.9%	Endpoint	Test Duration (hr)	Species		Value	Source
(Normal Saline) Sterile Injection	Not Available	Not Available	Not Available		Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Valu	le	Source
	NOEC(ECx)	168h	Crustacea	0.63	0.63mg/l	
Sodium Chloride	EC50	72h	Algae or other aquatic plants	20.7	20.76-36.17mg/L	
	EC50	48h	Crustacea	340	340.7-469.2mg/l	
	LC50	96h	Fish	364	4-4565mg/l	4
	EC50	96h	Algae or other aquatic plants	1110	).36mg/L	4
	Endpoint	Test Duration (hr)	Species		Value	Source
water	Not Available	Not Available	Not Available		Not Available	Not Available
Water	Available Extracted from Ecotox databas	1. IUCLID Toxicity Data 2. Europe E	Not Available CHA Registered Substances - Ecotoxicological Info C Aquatic Hazard Assessment Data 6. NITE (Japan		Available	Ava US E

# Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Sodium Chloride	LOW	LOW
water	LOW	LOW

# **Bioaccumulative potential**

Ingredient	Bioaccumulation
Sodium Chloride	LOW (LogKOW = 0.5392)
Mobility in soil	

Ingredient	Mobility
Sodium Chloride	LOW (KOC = 14.3)

## **SECTION 13 Disposal considerations**

Waste treatment methods	
Product / Packaging disposal	<ul> <li>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</li> <li>A Hierarchy of Controls seems to be common - the user should investigate: <ul> <li>Reduction</li> <li>Reuse</li> <li>Recycling</li> <li>Disposal (if all else fails)</li> </ul> </li> <li>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</li> <li><b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sever may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible.</li> <li>Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul>

## **SECTION 14 Transport information**

Labels Required		
Marine Pollutant	NO	
HAZCHEM	Not Applicable	

## Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

#### Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

#### Transport in bulk according to Annex II of MARPOL and the IBC code

#### Not Applicable

#### Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Sodium Chloride	Not Available
water	Not Available

#### Transport in bulk in accordance with the ICG Code

Product name	Ship Type
Sodium Chloride	Not Available
water	Not Available

#### **SECTION 15 Regulatory information**

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

#### Sodium Chloride is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

#### water is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

#### **National Inventory Status**

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (Sodium Chloride; water)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

## **SECTION 16 Other information**

Revision Date	01/11/2019
Initial Date	11/04/2011

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
3.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.

Phebra and the Phi symbol are trademarks of Phebra Pty Ltd, 19 Orion Road, Lane Cove West, Australia.

