

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.11.2012

Revision: 06.11.2012

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

· **Product identifier**

· **Trade name:** 4% EP Grade saline solution-Sterile

· **Article number:** 20-9400-10

· **Registration number** Sodium chloride: 01-2119494219-28

· **Relevant identified uses of the substance or mixture and uses advised against**

As ingredient in construction chemicals; Road de-icing agent; Industrial use in the manufacture of computer, electronic and optical products, electrical equipment; Industrial manufacture and use of chemicals for textiles, leather, fur; Industrial manufacture of cosmetics; Industrial manufacture and use of water treatment chemicals; Industrial manufacture and use of pulp and paper products; Industrial use of chemicals; Industrial use as intermediate; Side product of silica compound manufacturing; Industrial use in the manufacture of electrodes; Professional use in agriculture; Adhesive agent; Filler of washing powder.

Uses advised against

Uses by consumers advised against

- Consumer use of synthetic NaCl in food and feed

Chemical product category PC 0: Other:

- Consumer use of synthetic NaCl in cosmetics

Chemical product category PC 39: Cosmetics, personal care products

· **Sector of Use**

SU0 Other

SU1 Agriculture, forestry, fishery

SU2a Mining, (without offshore industries)

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU5 Manufacture of textiles, leather, fur

SU6b Manufacture of pulp, paper and paper products

SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

SU9 Manufacture of fine chemicals

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement

SU16 Manufacture of computer, electronic and optical products, electrical equipment

SU19 Building and construction work

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU23 Electricity, steam, gas water supply and sewage treatment

· **Product category**

PC0 Other

PC1 Adhesives, sealants

PC2 Adsorbents

PC4 Anti-Freeze and de-icing products

PC9a Coatings and paints, thinners, paint removers

PC9b Fillers, putties, plasters, modelling clay

PC12 Fertilizers

PC14 Metal surface treatment products, including galvanic and electroplating products

PC15 Non-metal-surface treatment products

PC18 Ink and toners

PC19 Intermediate

PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents

PC23 Leather tanning, dye, finishing, impregnation and care products

PC26 Paper and board dye, finishing and impregnation products: including bleaches and other processing aids

PC28 Perfumes, fragrances

PC34 Textile dyes, finishing and impregnating products; including bleaches and other processing aids

PC37 Water treatment chemicals

PC39 Cosmetics, personal care products

· **Process category**

PROC2 Use in closed, continuous process with occasional controlled exposure

PROC1 Use in closed process, no likelihood of exposure

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- PROC3 Use in closed batch process (synthesis or formulation)
- PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
- PROC6 Calendering operations
- PROC7 Industrial spraying
- PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
- PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
- PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
- PROC10 Roller application or brushing
- PROC11 Non industrial spraying
- PROC13 Treatment of articles by dipping and pouring
- PROC14 Production of preparations or articles by tableting, compression, extrusion, pelletisation
- PROC15 Use as laboratory reagent
- PROC19 Hand-mixing with intimate contact and only PPE available
- PROC26 Handling of solid inorganic substances at ambient temperature

· **Environmental release category**

- ERC1 Manufacture of substances
- ERC2 Formulation of preparations
- ERC3 Formulation in materials
- ERC4 Industrial use of processing aids in processes and products, not becoming part of articles
- ERC5 Industrial use resulting in inclusion into or onto a matrix
- ERC6a Industrial use resulting in manufacture of another substance (use of intermediates)
- ERC7 Industrial use of substances in closed systems
- ERC8a Wide dispersive indoor use of processing aids in open systems
- ERC8b Wide dispersive indoor use of reactive substances in open systems
- ERC8c Wide dispersive indoor use resulting in inclusion into or onto a matrix
- ERC8d Wide dispersive outdoor use of processing aids in open systems
- ERC8f Wide dispersive outdoor use resulting in inclusion into or onto a matrix
- ERC9b Wide dispersive outdoor use of substances in closed systems

· **Article category**

- AC0 Other
- AC2 Machinery, mechanical appliances, electrical/electronic articles
- AC4 Stone, plaster, cement, glass and ceramic articles

· **Application of the substance / the preparation**

The greatest single use for salt is as a feedstock for the production of chemicals. It has many other uses such as in food processing and as a highway deicing agent.

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Severn Biotech Ltd.
 Unit 2,
 Park Lane,
 Kidderminster,
 Worcestershire.
 DY11 6TJ
 UK
 Tel: 0044 1562 825286
 Fax: 0044 1562 825284
 email: info@severnbiotech.com

· **Further information obtainable from:** Product safety department.

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· **Emergency telephone number:** Tel: 0044 1562 825286 (not 24 hours)

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- **Information concerning particular hazards for human and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
7647-14-5 Sodium chloride
- **Identification number(s)**
- **EC number:** 231-598-3
- **Chemical characterization: Mixtures**
- **Description:** An aqueous solution of sodium chloride
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
- **Information for doctor:** Treat symptomatically and supportively.
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:** Dilute with plenty water.
- **Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Prevent formation of aerosols.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from metals.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from frost.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **DNELs**
WORKERS
Acute / short-term exposure - systemic effects
Dermal DN(M)EL
- DNEL (Derived No Effect Level): 295.52 mg/kg bw/day

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Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 2068.62 mg/m³

Long-term exposure - systemic effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 295.52 mg/kg bw/day

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 2068.62 mg/m³**GENERAL POPULATION**

Acute / short-term exposure - systemic effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 126.65 mg/kg bw/day

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 443.28 mg/m³

Oral DN(M)EL

- DNEL (Derived No Effect Level): 126.65 mg/kg bw/day

Long-term exposure - systemic effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 126.65 mg/kg bw/day

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 443.28 mg/m³

Oral DN(M)EL

- DNEL (Derived No Effect Level): 126.65 mg/kg bw/day

· **PNECs**

PNEC aqua (freshwater): 5 mg/L

PNEC aqua (intermittent releases): 19 mg/L

PNEC STP: 500 mg/L

PNEC soil: 4.86 mg/kg soil dw

· **Additional information:** The lists valid during the making were used as basis.· **Exposure controls**· **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.

· **General protective and hygienic measures:**

Avoid close or long term contact with the skin.

Do not eat, drink, smoke or sniff while working.

Avoid contact with the eyes.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:** Not required.· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product 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.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Safety glasses
Goggles recommended during refilling
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Colour:	Clear
Odour:	Odourless
Odour threshold:	Not determined.

· **pH-value:** 6.7-7.3

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C

· **Flash point:** Cannot support combustion

· **Flammability (solid, gaseous):** Not applicable.

· Ignition temperature:

Decomposition temperature: Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· **Vapour pressure at 20 °C:** 23 hPa

Density at 20 °C:	1.05 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· **Other information** No further relevant information available.

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Finely powdered metals.
- **Hazardous decomposition products:** Hydrogen chloride (HCl)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** Product is not expected to bioaccumulate.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Contact waste processors for recycling information.
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.
- **European waste catalogue**
Waste key numbers in accordance with the European Waste catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier.

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The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· UN-Number · ADR, ADN, IMDG, IATA	Void
· UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· Packing group · ADR, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department.