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

· 1.1 Product identifier

· Trade name: PBS 10 x (Sterile) + 0.5% Tween 20

· **Article number:** 20-7440-10 · Registration number Mixture

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use SU24 Scientific research and development
- · Product category PC21 Laboratory chemicals
- · Application of the substance / the mixture Laboratory reagent
- · Uses advised against Processes involving extreme heat use advised against.
- · 1.3 Details of the supplier of the safety data sheet

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.
- · 1.4 Emergency telephone number:

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the GB CLP regulation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Additional information:

EUH210 Safety data sheet available on request.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

	Dongorous	components:
•	Dangerons	COMMONIE INS.

CAS: 7647-14-5 Sodium chloride EINECS: 231-598-3

substance with a Community workplace exposure limit

Reg.nr.: 01-2119494219-28-XXXX

2.5 - 10%

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SECTION 4: First aid measures

· 4.1 Description of first aid measures

- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact:

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

- · Information for doctor: Treat symptomatically and supportively.
- · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- · 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation
- · 6.2 Environmental precautions:

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course in the undiluted form.

 \cdot 6.3 Methods and material for containment and cleaning up:

Contain and collect spillage with non-combustible, absorbent material e.g.sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

 \cdot 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of aerosols.

Ensure good ventilation/exhaustion at the workplace.

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- Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
- · Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from frost.

- · Storage class: 12
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Additional information about design of technical facilities: No further data; see section 7.

· Ingredients with limit values that require monitoring at the workplace:				
7647-14-5 Sodium chloride				
RESPIRABLE DUST	Long-term value: 4 mg/m³			
TOTAL INHALABLE DUST	Long-term value: 10 mg/m³			

· DNELs

7647-14-5 Sodium chloride

Oral	DNEL Long-term systemic effects	126.65 mg/kg bw/day (general population)	
	DNEL Short-term systemic effects	126.65 mg/kg bw/day (general population)	
Dermal	DNEL Long-term systemic effects	126.65 mg/kg bw/day (general population)	
		295.52 mg/kg bw/day (worker)	
	DNEL Short-term systemic effects	126.65 mg/kg bw/day (general population)	
		295.52 mg/kg bw/day (worker)	
Inhalative	DNEL Long-term systemic effects	443.28 mg/m³ (general population)	
		2,068.62 mg/m³ (worker)	
	DNEL Short-term systemic effects	443.28 mg/m³ (general population)	
		2,068.62 mg/m³ (worker)	

· PNECs

7647-14-5 Sodium chloride

PNEC Freshwater	5 mg/L
PNEC Sewage Treatment Plant	500 mg/L
PNEC Soil	4.86 mg/kg

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Take note of assigned Workplace Exposure Limits.

Avoid contact with the eyes and skin.

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

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

- · Respiratory protection: Not necessary if room is well-ventilated.
- · Protection of hands:



For prolonged contact, use protective gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

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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.

· 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 with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

· Body protection:



Protective work clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

Not determined.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
· General Information
•

· Appearance:

Fluid Form: **Colour:** Clear · Odour: Characteristic · Odour threshold: Not determined.

· Change in condition

· pH-value:

Melting point/freezing point: Undetermined. Initial boiling point and boiling range: 100 °C

Not applicable. · Flash point:

· Flammability (solid, gas): Not applicable.

· Decomposition temperature: Not determined. · Ignition temperature: Product is not self-igniting.

· Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined. Upper: Not determined.

· Vapour pressure: Not determined.

· Density at 20 °C: 1.1 g/cm³ · Relative density Not determined.

· Vapour density Not determined. · Evaporation rate Not determined.

· Solubility in / Miscibility with

Fully miscible. water:

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	(Contd. of page 4)
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	0.00 %
• 9.2 Other information	NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: Strong oxidising agents.
- · 10.6 Hazardous decomposition products:

Phosphorus oxides (e.g. P2O5)

Hydrogen chloride (HCl)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values relevant for classification:

7647-14-5 Sodium chloride

Oral LD50 > 2,000 mg/kg (rat)

- Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Subacute to chronic toxicity: Prolonged or repeated skin contact may irritate and cause dermatitis.
- · Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

7647-14-5 Sodium chloride

EC50 (96 h) > 4,000 mg/l (Bacteria)

5,840 mg/l (fsh)

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- 12.2 Persistence and degradability The organic portion of the product is biodegradable.
- 12.3 Bioaccumulative potential Product is not expected to bioaccumulate.
- 12.4 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.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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

- · Uncleaned packaging:
- · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Disposal must be made according to official regulations.

Containers, even those that are "empty," may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14.1 UN-Number	N
ADR/RID/ADN, ADN, IMDG, IATA	Not applicable
14.2 UN proper shipping name ADR/RID/ADN, ADN, IMDG, IATA	Not applicable
14.3 Transport hazard class(es)	
ADR/RID/ADN, ADN, IMDG, IATA	
Class	Not applicable
14.4 Packing group	
ADR/RID/ADN, IMDG, IATA	Not applicable
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Not applicable.

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· 14.7 Transport in bulk according to Annex II of		
Marpol and the IBC Code	Not applicable.	
· Transport/Additional information:	Not dangerous according to the above specifications.	
· UN "Model Regulation":	Not applicable	

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Poisons Act
- · Regulated explosives precursors

None of the ingredients is listed.

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

 \cdot Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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 SDS: Product safety department.
- · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (UK REACH)

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Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

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PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

* Data compared to the previous version altered.

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