

Safety Data Sheet
according to UK REACH (SI 2020/1577) as amended

Printing date 06.11.2025

Version number 1

Revision: 06.11.2025

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

- **1.1 Product identifier**
- **Trade name: Phosphate Buffered Saline 10X with 0.5% Sodium Azide**
- **Product Code: 20-7450**
- **Registration number Mixture**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category PC21 Laboratory chemicals**
- **Application of the substance / the mixture Laboratory chemicals**
- **Uses advised against Any use not specified above.**
- **1.3 Details of the supplier of the safety data sheet**
- **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.**
- **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 GB-CLP**
Acute Tox. 4 H332 Harmful if inhaled.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to GB-CLP** The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**
Sodium azide
- **Hazard statements**
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P261 Avoid breathing mist/vapours/spray.

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- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P501 Dispose of contents/container in accordance with local regulations.

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

SECTION 3: Composition/information on ingredients

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

- **Dangerous components:**

CAS: 7647-14-5 EINECS: 231-598-3 Reg.nr.: 01-2119485491-33-XXXX	Sodium chloride substance with a workplace exposure limit	2.5 – 10%
CAS: 26628-22-8 EINECS: 247-852-1 Index number: 011-004-00-7 Reg.nr.: 01-2119457019-37-XXXX	Sodium azide ⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; ⚠ STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410, EUH032	0.25 – < 1%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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.
Do not induce vomiting; call for medical help immediately.
- **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:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.

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- **For safety reasons unsuitable extinguishing agents:** Water with full jet
 - **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)
Phosphorous oxides
Under certain fire conditions, traces of other toxic gases cannot be excluded.
 - **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.
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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
Particular danger of slipping on leaked/spilled product.
 - **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
 - **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.
 - **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.
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SECTION 7: Handling and storage

- **7.1 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.
 - **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.
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SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

CAS: 7647-14-5 Sodium chloride

RESPIRABLE DUST	Long-term value: 4 mg/m ³
TOTAL INHALABLE DUST	Long-term value: 10 mg/m ³

CAS: 26628-22-8 Sodium azide

WEL	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ (as NaN ₃), Sk
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· DNELs

CAS: 7647-14-5 Sodium chloride

Oral	Long-term systemic effects	126.65 mg/kg bw/day (general population)
	Short-term systemic effects	126.65 mg/kg bw/day (general population)
Dermal	Long-term systemic effects	126.65 mg/kg bw/day (general population) 295.52 mg/kg bw/day (worker)
	Short-term systemic effects	126.65 mg/kg bw/day (general population) 295.52 mg/kg bw/day (worker)
Inhalative	Long-term systemic effects	443.28 mg/m ³ (general population) 2,068.62 mg/m ³ (worker)
	Short-term systemic effects	443.28 mg/m ³ (general population) 2,068.62 mg/m ³ (worker)

CAS: 26628-22-8 Sodium azide

Oral	Long-term systemic effects	50 µg/kg bw/day (general population)
Dermal	Long-term systemic effects	50 µg/kg bw/day (general population) 140 µg/kg bw/day (worker)
	Long-term systemic effects	87 µg/m ³ (general population) 493 µg/m ³ (worker)

· PNECs

CAS: 7647-14-5 Sodium chloride

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

CAS: 26628-22-8 Sodium azide

Freshwater	350 ng/L
Freshwater - Intermittent releases	3.5 µg/L
Marine water	15 ng/L
Marine Water - Intermittent releases	150 ng/L
Sewage Treatment Plant	30 µg/L
Sediment (freshwater)	16.7 µg/kg
Sediment (marine water)	720 ng/kg

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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as 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 required.
- **Hand protection**



Protective gloves.

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

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/face 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.

- **Environmental exposure controls** Do not allow to enter drains, sewers or watercourses.
- **Risk management measures** The operators shall be instructed adequately.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Physical state** Liquid
- **Colour:** Colourless - pale yellow
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** 100 °C

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· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	Not applicable.
· Decomposition temperature:	Not determined.
· pH at 20 °C	7
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density and/or relative density	
· Density at 20 °C:	1.1 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· 9.2 Other information	
· Appearance:	
· Form:	Liquid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not self-igniting.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	Not applicable

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** Heat and static discharge.
- **10.5 Incompatible materials:**
Strong oxidising agents.
Strong bases.
- **10.6 Hazardous decomposition products:**
Nitrogen oxides (NO_x)
Phosphorus oxides (e.g. P₂O₅)

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SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

- **Acute toxicity**
Harmful if inhaled.

- **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)

Oral	LD50	5,400 mg/kg (rat)
Dermal	LD50	3,600 mg/kg (rabbit)
Inhalative	LC50/4 h	10.8 mg/l (rat)

CAS: 7647-14-5 Sodium chloride

Oral	LD50	> 2,000 mg/kg (rat)
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CAS: 26628-22-8 Sodium azide

Oral	LD50	27 mg/kg (rat)
Dermal	LD50	18 mg/kg (rabbit)
Inhalative	LC50/4 h	0.054 mg/l (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.
- **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.
- **Subacute to chronic toxicity:** Prolonged or repeated skin contact may irritate and cause dermatitis.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients are listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

CAS: 7647-14-5 Sodium chloride

LC50 (96 h)	> 4,000 mg/l (Bacteria)
	5,840 mg/l (fsh)

CAS: 26628-22-8 Sodium azide

LC50 (96 h)	0.348 mg/l (Algae)
EC50 (3 h)	5.6 mg/L (Bacteria)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.

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- **12.5 Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
 - **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
 - **12.7 Other adverse effects**
 - **Remark:** Harmful to fish
 - **Additional ecological information:**
 - **General notes:**
 Harmful to aquatic organisms
 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.
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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).
 Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
 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.

- **UK List of Waste**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals

- **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 flammable and/or hazardous 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.
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SECTION 14: Transport information

- | | |
|--|----------------|
| <ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, ADN, IMDG, IATA | Not applicable |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Not applicable |

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· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Not applicable
· 14.4 Packing group	
· ADR, IMDG, IATA	Not applicable
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Maritime transport in bulk according to IMO instruments	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 are listed.

- **Regulated poisons**

None of the ingredients are listed.

- **Reportable explosives precursors**

None of the ingredients are listed.

- **Reportable poisons**

None of the ingredients are listed.

- **Control Of Major Accident Hazards Regulations 2015 (COMAH)**
- **Named dangerous substances - ANNEX I** None of the ingredients are 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.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

- **Relevant phrases**

- H300 Fatal if swallowed.
- H310 Fatal in contact with skin.
- H330 Fatal if inhaled.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- EUH032 Contact with acids liberates very toxic gas.

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· **Training hints**

This product should only be handled by workers who have received sufficient training in the safe handling and use of chemical products.

· **Department issuing SDS:** Product safety department.

· **Abbreviations and acronyms:**

UK- REACH: The UK REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

GB- CLP: Retained GB CLP Regulation (EU) No. 1272/2008 as amended for Great Britain on the Classification, Labelling and Packaging of Chemicals.

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)

DNEL: Derived No-Effect Level (UK REACH)

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

ATE: Acute toxicity estimate values

Acute Tox. 2: Acute toxicity – Category 2

Acute Tox. 1: Acute toxicity – Category 1

Acute Tox. 4: Acute toxicity – Category 4

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3