

SAFETY DATA SHEET

Product Identifier: 10X PBS, pH 7.4
Catalog ID number: 567004

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Contact information

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Product identifier	10X Phosphate Buffered Saline (PBS), pH 7.4
Synonyms	None identified
Trade names	None identified
Chemical family	Mixture – not applicable
Relevant identified uses of the substance or mixture and uses advised against	For research use only. Not for use of diagnostic procedures.

Note This SDS is written to address potential health and safety issues associated with the handling of the formulated product.

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System [GHS]	Not classified
AU Hazard Classification (NOHSC)	Non-hazardous goods.

Label elements

CLP/GHS hazard pictogram	None required
CLP/GHS signal word	None required
CLP/GHS hazard statements	None required
CLP/GHS precautionary statements	None required

SAFETY DATA SHEET

Product Identifier: 10X PBS, pH 7.4

Catalog ID number: 567004

Other hazards	Mixture does not contain any substances that are assessed to be hazardous. Eyes: May cause eye irritation with susceptible persons. Skin: May cause skin irritation in susceptible persons. Inhalation: May be harmful by inhalation. Ingestion: May be harmful if swallowed.
Note	This mixture is not classified as hazardous according to Regulation EC No 1272/ 2008 (EU CLP) and Hazard Communication Standard No. 1910.1200 (US OSHA). The pharmacological, toxicological and ecological properties of this mixture have not been fully characterized.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Note	There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and therefore do not reporting in this section.
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SECTION 4 - FIRST AID MEASURES

Description of first aid measures

Eye Contact	If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.
Skin Contact	Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.
Inhalation	Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.
Ingestion	Do not induce vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.
Protection of first aid responders	See Section 8 for Exposure Controls/Personal Protection recommendations.
Most important symptoms and effects, both acute and delayed	See Sections 2 and 11.
Indication of immediate medical attention and special treatment needed, if necessary	None known or reported. Treat symptomatically and supportively.

SECTION 5 - FIREFIGHTING MEASURES

Extinguishing media	Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.
Specific hazards arising from the substance or mixture	No information identified..

SAFETY DATA SHEET

Product Identifier: 10X PBS, pH 7.4
Catalog ID number: 567004

Flammability/Explosivity No information identified.

Advice for firefighters Wear full protective clothing and a self-contained breathing apparatus with a full facepiece operated in the pressure demand or other positive pressure mode. Decontaminate all equipment after use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8).

Environmental precautions Do not empty into drains. Avoid release to the environment.

Methods and material for containment and cleaning up For small spills, soak up material with absorbent, e.g., paper towels. For large spills, cordon off spill area and minimize the spreading of spilled material. Soak up material with absorbent. Collect spilled material, absorbent, and rinse water into suitable containers for proper disposal in accordance with applicable waste disposal regulations (see Section 13).

Reference to other sections See Sections 8 and 13 for more information.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

Conditions for safe storage including any incompatibilities Store in a dry, cool and well-ventilated space in tightly closed containers that are appropriately labeled.

Specific end use(s) No information identified.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Note Dispose of broken vials/syringes in a sharps container.

Control Parameters/Occupational Exposure Limit Values We are not aware of any national exposure limit for this mixture.

Exposure/Engineering controls If handling bulk product or vials are opened/crushed/broken: Selection and use of containment devices and personal protective equipment should be based on a risk assessment of exposure potential.

Respiratory protection If handling bulk product or vials are opened/crushed/broken: Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls.

Hand protection Wear nitrile or other impervious gloves if skin contact is possible.

Skin protection Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact and reagents in use.

SAFETY DATA SHEET**Product Identifier: 10X PBS, pH 7.4****Catalog ID number: 567004**

Eye/face protection	Wear safety glasses with side shields, chemical splash goggles, or full-face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.
Environmental Exposure Controls	Avoid release to the environment and operate within closed systems wherever practicable. In case of spill, do not release to drains.
Other protective measures	Handle in accordance with good industrial hygiene and safety practices. Wash hands thoroughly after use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear liquid
Color	Colorless
Odor	Odorless.
Odor threshold	No information identified.
pH	7.4
Melting point/freezing point	No information identified.
Initial boiling point and boiling range	No information identified.
Flash point	No information identified.
Evaporation rate	No information identified.
Flammability (solid, gas)	No information identified.
Upper/lower flammability or explosive limits	No information identified.
Vapor pressure	No information identified.
Vapor density	No information identified.
Relative density	No information identified.
Water solubility	Fully soluble in water.
Solvent solubility	No information identified.
Partition coefficient (<i>n</i>-octanol/water)	No information identified.
Auto-ignition temperature	No information identified.
Decomposition temperature	No information identified.
Viscosity	No information identified.
Explosive properties	No information identified.

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SECTION 10 - STABILITY AND REACTIVITY

Reactivity Stable under normal conditions.**Chemical stability** Stable.**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.**Conditions to avoid** No dangerous reaction known under conditions of normal use.**Incompatible materials** None identified.**Hazardous decomposition products** None under normal use.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects**Route of entry** May be absorbed by inhalation, skin contact and ingestion.**Acute toxicity** Not Hazardous.**Irritation/Corrosion** May cause eye and skin irritation in susceptible persons.**Sensitization** None.**Reproductive toxicity** None.**Developmental toxicity** None.**Genotoxicity** None.**Carcinogenicity** None. This mixture is not listed by NTP, IARC, ACGIH or OSHA as a carcinogen.**Aspiration hazard** No data available.**Human health data** See Section 2 - "Other hazards"

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity No data identified.**Persistence and Degradability** No data identified.**Bioaccumulative potential** Material does not bioaccumulate**Mobility in soil** No data identified.

SAFETY DATA SHEET**Product Identifier: 10X PBS, pH 7.4****Catalog ID number: 567004****Results of PBT and vPvB assessment** Not performed.**Other adverse effects** No data identified.**Note** The environmental characteristics of this product/mixture have not been fully investigated. The above data are for the active ingredient and/or any other ingredient(s) where applicable.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods Dispose of wastes in accordance to prescribed federal, state, and local guidelines.

SECTION 14 - TRANSPORT INFORMATION

Transport Based on the available data, this mixture is not regulated as a hazardous material/ dangerous good under EU ADR/RID, US DOT, Canada TDG, IATA, or IMDG.**UN number** None assigned.**UN proper shipping name** None assigned.**Transport hazard classes and packing group** None assigned**Environmental hazards** Based on the available data, this mixture is not regulated as an environmental hazard or a marine pollutant.**Special precautions for users** No special precautions needed. Avoid release to the environment.**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.**Hazardchem Code/HIN** None assigned.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture This SDS complies with the requirements under US, EU and GHS (EU CLP - Regulation EC No 1272/2008) guidelines. Consult your local/regional authorities for more information.**Chemical safety assessment** Not conducted.**WHMIS classification** Not classified.**TSCA status** Not listed**SARA section 313** Not listed.**California proposition 65** Not listed.**Component Analysis – State** Not listed.

SAFETY DATA SHEET

Product Identifier: 10X PBS, pH 7.4
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Component Analysis – Not listed.
 Chemical Inventory

Additional information No other information identified.

SECTION 16 - OTHER INFORMATION

NFPA Ratings Mixture Health: 0 Fire: 0 Reactivity: 0

Full text of H phrases and GHS classifications ATO2 – Acute Toxicity (Oral) Category 2. H300 – Fatal if swallowed. AA1 – Acute aquatic toxicity Category 1. H400 – Very toxic to aquatic life. CA1 – Aquatic toxicity (chronic) – Category 1. EUH032 - Contact with acids liberates very toxic gas.

Sources of data Information from published literature and internal company data.

Abbreviations ACGIH - American Conference of Governmental Industrial Hygienists; ADR/RID - European Agreement Concerning the International Carriage of Dangerous Goods by Road/Rail; AIHA - American Industrial Hygiene Association; CA – California; CAS# - Chemical Abstract Services Number; CLP - Classification, Labelling, and Packaging of Substances and Mixtures; DNEL - Derived No Effect Level; DOT - Department of Transportation; EINECS - European Inventory of New and Existing Chemical Substances; ELINCS - European List of Notified Chemical Substances; EU - European Union; GHS - Globally Harmonized System of Classification and Labeling of Chemicals; HI – Hawaii; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; LOEL - Lowest Observed Effect Level; LOAEL - Lowest Observed Adverse Effect Level; MA – Massachusetts; MN – Minnesota; NJ – New Jersey; NIOSH - The National Institute for Occupational Safety and Health; NOEL - No Observed Effect Level; NOAEL - No Observed Adverse Effect Level; NTP - National Toxicology Program; OEL - Occupational Exposure Limit; OSHA - Occupational Safety and Health Administration; PA – Pennsylvania; PNEC - Predicted No Effect Concentration; RI – Rhode Island; SARA - Superfund Amendments and Reauthorization Act; STEL - Short Term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; VT – Vermont; WA – Washington; WHMIS - Workplace Hazardous Materials Information System

Revisions This is the first version of this SDS.

Disclaimer The statements contained herein are offered for informational purposes only and are based upon our present state of knowledge. It is applicable to the product with regard to appropriate safety precautions. IONpath, Inc. believes them to be accurate at the date of publication, but does not purport to be all-inclusive and shall be used only as a guide. The above-stated product is intended for use only by persons having the necessary technical skills and facilities for handling the product at their discretion and risk. Since conditions and manner of use are outside our control, we (IONpath, Inc) make no warranty of merchantability or any such warranty, express or implied with respect to information and we assume no liability resulting from the above product or its use. Users should perform their own investigations to determine suitability of information and product for their particular purposes.