

Safety Data Sheet

Phosphate Buffered Saline (PBS)

Section 1 - Chemical Product and Company Identification

SDS Name: Phosphate Buffered Saline (PBS)

Catalog Numbers: SO-233

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

Based on available data, the GHS classification criteria are not met.

Pictograms or Hazard symbols and Hazard statement(s):

No GHS Hazard Symbols.

Hazard Statements:

No GHS Hazard Statements.

Precautionary Statements:

No GHS Precautionary Statements.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7647-14-5	Sodium Chloride	9 w/v
7758-11-4	Potassium Phosphate Dibasic	4 w/v
10049-21-5	Sodium Phosphate Monobasic Monohydrate	1 w/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Remove contact lenses if present. Call a physician.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Oral Exposure: If swallowed, get medical advice if feeling unwell. Rinse mouth with water.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Sodium oxides, phosphorous oxides, hydrogen chloride gas, irritating fumes and gases.

Flash Point: Not available

Autoignition Temperature: Not available

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Keep in a tightly closed container. Store in a cool, dry, and well-ventilated area. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH TLV	NIOSH IDLH	OSHA - Final PELs
Sodium Chloride CAS#7647-14-5	Not listed	Not listed	Not listed
Potassium Phosphate Dibasic CAS#7758-11-4	Not listed	Not listed	Not listed
Sodium Phosphate Monobasic Monohydrate CAS#10049-21-5	Not listed	Not listed	Not listed

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear, colorless

Odor: Odorless

Vapor Pressure: Not available

Odor Threshold: Not available

Vapor Density: Not available

pH: 6.8-7.2
Relative Density: Not available
Melting point/freezing point: Not available
Solubility: Soluble in water
Boiling Point: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Partition coefficient: n-octanol/water: Not available
Autoignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available
Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials.
Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, and metals.
Hazardous Decomposition Products: Sodium oxides, phosphorous oxides, hydrogen chloride gas, irritating fumes and gases.

Section 11 - Toxicological Information

CAS#7647-14-5 Sodium Chloride: RTECS#: VZ4725000

LD50 Oral: 3 g/kg (rat)
LD50 Dermal: >10000 mg/kg (rabbit)
LC50 Inhalation: >42 mg/L 1h (rat)

Carcinogenicity: Sodium Chloride CAS#7647-14-5 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#7758-11-4 Potassium Phosphate Dibasic:

LD50 Oral: 8 g/kg (rat)
LD50 Dermal: >5000 mg/kg (rabbit)
LC50 Inhalation: >0.83 mg/L 4h (rat)

Carcinogenicity: Potassium Phosphate Dibasic CAS#7758-11-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#10049-21-5 Sodium Phosphate Monobasic Monohydrate:

LD50 Oral: 8290 mg/kg (rat)
LD50 Dermal: >7940 mg/kg (rabbit)
LC50 Inhalation: >0.83 mg/L 4h (rat)

Carcinogenicity: Sodium Phosphate Monobasic Monohydrate CAS#10049-21-5 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

Epidemiology: Not available.

Teratogenicity: Animal testing with Sodium Chloride CAS#7647-14-5 did not show teratogenic effects.

Reproductive Effects: Not available.

Developmental Effects: Not available.

Neurotoxicity: Not available.

Mutagenicity: Animal testing with Sodium Chloride CAS#7647-14-5 did not show mutagenic effects.

Specific Target Organ Toxicity, Single Exposure: Not available.

Specific Target Organ Toxicity, Repeated Exposure: Not available.

Symptoms associated with exposure: Ingestion of large quantities can irritate the stomach. Overexposure by ingestion may cause abdominal pain, nausea, vomiting, diarrhea, and changes in blood pressure. May cause dehydration. May cause thirst. May affect the cardiovascular system. May affect metabolism. May produce inflammatory reactions in the gastrointestinal tract. May affect behavior/central nervous system.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains.

CAS#7647-14-5 Sodium Chloride:

LC50, freshwater fish: 7650 mg/L 96h (pimephales promelas)(fathead minnow)

LC50, freshwater fish: 5840 mg/L 96h flow-through (lepisomis macrochirus)(bluegill)

EC50, water flea: 874 mg/L 48h static (daphnia magna)

EC50, algae: 2430 mg/L 120h static (nitzschia sp.)

CAS#7758-11-4 Potassium Phosphate Dibasic:

LC50, freshwater fish: >100 mg/L 96h semi-static (oncorhynchus mykiss)(rainbow trout)

EC50, water flea: >100 mg/L 48h static (daphnia magna)

ErC50, algae: >100 mg/L 72h static (desmodesmus subspicatus)(green algae)

EC50, bacteria: >1000 mg/L 3h (activated sludge)

Persistence and degradability: Not available.

Bio-accumulative potential: Not available.

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Non-Regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 1-10-24

Revision #1: 1-13-25

Revision #2: 1-5-26

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