

SAFETY DATA SHEET

Creation Date 22-Sep-2009

Revision Date 24-Dec-2021

Revision Number 4

1. Identification

Product Name PBS Phosphate Buffered Saline

Cat No. : BP661-10, BP661-50, BP665-1, XXBP66510KG; NC2739937; NC1798078

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

None required

Hazards not otherwise classified (HNOC)

Other hazards

May cause skin, eye, and respiratory tract irritation.

3. Composition/Information on Ingredients

| Component | CAS No | Weight % |
|--------------------------------|-----------|----------|
| Sodium chloride | 7647-14-5 | 81.0 |
| Sodium phosphate dibasic | 7558-79-4 | ~ 14 |
| Dihydrogen potassium phosphate | 7778-77-0 | ~ 3.0 |
| Potassium chloride | 7447-40-7 | ~ 2.0 |

4. First-aid measures

| | |
|--|--|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Inhalation | Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration. |
| Ingestion | Do NOT induce vomiting. Get medical attention. |
| Most important symptoms and effects | No information available. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|--|
| Suitable Extinguishing Media | Water spray or fog is preferred; if water not available use dry chemical, CO2 or regular foam. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | No information available |
| Method - | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Containers may explode when heated.

Hazardous Combustion Products

Sodium oxides. Oxides of phosphorus. Potassium oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
1

Flammability
0

Instability
1

Physical hazards
N/A

6. Accidental release measures

| | |
|---|---|
| Personal Precautions | Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. |
| Environmental Precautions | See Section 12 for additional Ecological Information. |
| Methods for Containment and Clean Up | Sweep up and shovel into suitable containers for disposal. Avoid dust formation. |

7. Handling and storage

| | |
|-----------------|---|
| Handling | Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing. |
| Storage. | Keep containers tightly closed in a dry, cool and well-ventilated place. |

8. Exposure controls / personal protection

| | |
|-----------------------------------|---|
| <u>Exposure Guidelines</u> | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|-----------------------------------|---|

| | |
|-----------------------------|-----------------------------------|
| Engineering Measures | None under normal use conditions. |
|-----------------------------|-----------------------------------|

Personal Protective Equipment

| | |
|---------------------------------|---|
| Eye/face Protection | 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 and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
| Respiratory Protection | No protective equipment is needed under normal use conditions. |
| Recommended Filter type: | Particle filter. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical and chemical properties

| | |
|---|--------------------------|
| Physical State | Solid |
| Appearance | White |
| Odor | Odorless |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point/Range | No data available |
| Boiling Point/Range | No information available |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | No information available |
| Solubility | Soluble in water |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | No information available |
| Viscosity | Not applicable |

10. Stability and reactivity

| | |
|---|---|
| Reactive Hazard | None known, based on information available |
| Stability | Stable under normal conditions. Hygroscopic. |
| Conditions to Avoid | Incompatible products. Exposure to moisture. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products | Sodium oxides, Oxides of phosphorus, Potassium oxides |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

| | |
|----------------------------|---|
| Product Information | No acute toxicity information is available for this product |
| Oral LD50 | Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. |
| Dermal LD50 | Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. |
| Mist LC50 | Based on ATE data, the classification criteria are not met. ATE > 5 mg/l. |

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------------------|---------------------------|-------------------------------|------------------------------|
| Sodium chloride | LD50 = 3 g/kg (Rat) | LD50 > 10000 mg/kg (Rabbit) | LC50 > 42 mg/L (Rat) 1 h |
| Sodium phosphate dibasic | LD50 = 17 g/kg (Rat) | Not listed | Not listed |
| Dihydrogen potassium phosphate | LD50 = 3200 mg/kg (Rat) | LD50 > 4640 mg/kg (Rabbit) | LC50 > 0.83 mg/L (Rat) 4 h |
| Potassium chloride | LD50 = 2600 mg/kg (Rat) | Not listed | Not listed |

| | |
|---|--------------------------|
| Toxicologically Synergistic Products | No information available |
|---|--------------------------|

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|------------------------|--|
| Irritation | May cause skin, eye, and respiratory tract irritation |
| Sensitization | No information available |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|--------------------------------|-----------|------------|------------|------------|------------|------------|
| Sodium chloride | 7647-14-5 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Sodium phosphate dibasic | 7558-79-4 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Dihydrogen potassium phosphate | 7778-77-0 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Potassium chloride | 7447-40-7 | Not listed | Not listed | Not listed | Not listed | Not listed |

| | |
|--------------------------|--------------------------|
| Mutagenic Effects | No information available |
|--------------------------|--------------------------|

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|-----------------------------|---------------------------|
| Reproductive Effects | No information available. |
|-----------------------------|---------------------------|

| | |
|------------------------------|---------------------------|
| Developmental Effects | No information available. |
|------------------------------|---------------------------|

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|-----------------------|---------------------------|
| Teratogenicity | No information available. |
|-----------------------|---------------------------|

| | |
|---------------------------------|------------|
| STOT - single exposure | None known |
| STOT - repeated exposure | None known |

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|--------------------|---------------------|--|------------|---------------------|
| Sodium chloride | Not listed | Pimephals prome: LC50: 7650 mg/L/96h | Not listed | EC50: 1000 mg/L/48h |
| Potassium chloride | EC50: 2500 mg/L/72h | Lepomis macrochirus: LC50: 1060 mg/L /96h Pimephales promelas: LC50: 750 - 1020 mg/L /96h | Not listed | EC50: 825 mg/L/48h |

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|--------------------------------|-----------|------|---|-----------------------------|
| Sodium chloride | 7647-14-5 | X | ACTIVE | - |
| Sodium phosphate dibasic | 7558-79-4 | X | ACTIVE | - |
| Dihydrogen potassium phosphate | 7778-77-0 | X | ACTIVE | - |
| Potassium chloride | 7447-40-7 | X | ACTIVE | - |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|--------------------------------|-----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Sodium chloride | 7647-14-5 | X | - | 231-598-3 | X | X | X | X | X | KE-31387 |
| Sodium phosphate dibasic | 7558-79-4 | X | - | 231-448-7 | X | X | X | X | X | KE-12344 |
| Dihydrogen potassium phosphate | 7778-77-0 | X | - | 231-913-4 | X | X | X | X | X | KE-28622 |
| Potassium chloride | 7447-40-7 | X | - | 231-211-8 | X | X | X | X | X | KE-29086 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|--------------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Sodium phosphate dibasic | X | 5000 lb | - | - |

Clean Air Act

Not applicable

OSHA - Occupational Safety and Health Administration

Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component | Hazardous Substances RQs | CERCLA Extremely Hazardous Substances RQs | SARA Reportable Quantity (RQ) |
|--------------------------|--------------------------|---|-------------------------------|
| Sodium phosphate dibasic | 5000 lb | - | 5000 lb 2270 kg |

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|--------------------------|---------------|------------|--------------|----------|--------------|
| Sodium phosphate dibasic | X | X | X | - | - |

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH Not applicable

| Component | CAS No | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|--------------------------------|-----------|---|---|---|
| Sodium chloride | 7647-14-5 | - | - | - |
| Sodium phosphate dibasic | 7558-79-4 | - | - | - |
| Dihydrogen potassium phosphate | 7778-77-0 | - | - | - |
| Potassium chloride | 7447-40-7 | - | - | - |

Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|--------------------------------|-----------|----------|------------------------------|---------------------------|--|
| Sodium chloride | 7647-14-5 | Listed | Not applicable | Not applicable | Not applicable |
| Sodium phosphate dibasic | 7558-79-4 | Listed | Not applicable | Not applicable | Not applicable |
| Dihydrogen potassium phosphate | 7778-77-0 | Listed | Not applicable | Not applicable | Not applicable |
| Potassium chloride | 7447-40-7 | Listed | Not applicable | Not applicable | Not applicable |

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Other International Regulations

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|--------------------------------|-----------|---|--|----------------------------|------------------------------------|
| Sodium chloride | 7647-14-5 | Not applicable | Not applicable | Not applicable | Not applicable |
| Sodium phosphate dibasic | 7558-79-4 | Not applicable | Not applicable | Not applicable | Not applicable |
| Dihydrogen potassium phosphate | 7778-77-0 | Not applicable | Not applicable | Not applicable | Not applicable |
| Potassium chloride | 7447-40-7 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information

Prepared By Regulatory Affairs
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Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS