

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Phosphate Buffered Saline (PBS-1X)

Pure substance/preparation Substance Preparation

Identified uses For research use only, Not for use in humans.

Manufacturer
Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
TEL: 978-867-2300

2. HAZARDS IDENTIFICATION

Emergency Overview	
The product contains no substances which at their given concentration, are considered to be hazardous to health.	
Appearance Clear	Physical State liquid
	Odor No information available

OSHA Regulatory Status This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects

Acute Toxicity

Eyes	No known effect based on information supplied.
Skin	No known effect based on information supplied.
Inhalation	No known effect based on information supplied.
Ingestion	No known effect based on information supplied.

Chronic Effects

Chronic toxicity	No known effect based on information supplied.
Aggravated Medical Conditions	None known.
Environmental hazard	See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

4. FIRST AID MEASURES

Eye contact Flush eyes with water as a precaution.

Skin contact Wash skin with soap and water.

Inhalation Move to fresh air.

Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.

5. FIRE-FIGHTING MEASURES

Flammable Properties
Suitable Extinguishing Media
Protective Equipment and Precautions for Firefighters

Not flammable.
Dry chemical, CO, alcohol-resistant foam or water spray.
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health Hazard 0** **Flammability 0** **Stability 0** **Physical and chemical hazards -**

6. ACCIDENTAL RELEASE MEASURES

Personal precautions None required for material as supplied.

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up No dangerous substances are released.

7. HANDLING AND STORAGE

Advice on safe handling Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

Technical measures/Storage conditions Keep container tightly closed. Recommended storage temperature 4 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures Showers, eyewash stations, and ventilation systems.

Hygiene measures When using, do not eat, drink or smoke Wear suitable gloves and eye/face protection Wash hands before breaks and at the end of workday Wash hands with water as a precaution Regular cleaning of equipment, work area and clothing is recommended Avoid breathing vapors, mist or gas

Personal Protective Equipment

Respiratory protection None required under normal usage. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Eye/Face Protection Safety glasses with side-shields

Skin and body protection Protective gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	liquid
Appearance	Clear
Color	colorless
Odor	No information available
pH	7.2
Solubility	No information available
Melting point/range	No information available
Boiling Point/Range	No information available
Flash point	Not flammable. Not flammable
Autoignition temperature	No information available
Flammability Limits in Air	No information available
Explosive properties	No information available
VOC Content	No information available
Initial Boiling Point	No information available
Evaporation Rate	No information available
Decomposition Temperature °C	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	No information available
Hazardous Decomposition Products	None under normal use.

11. TOXICOLOGICAL INFORMATION

Caution - substance not yet tested completely

Acute Toxicity	None known based on the information supplied.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Target Organ Effects	None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Persistence and degradability	No information available.
Bioaccumulation	No information available.
Mobility	No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to state and federal regulations (40 CFR 261).

14. TRANSPORT INFORMATION

DOT Not regulated

MEX Not regulated

IATA Not regulated

15. REGULATORY INFORMATION

OSHA Regulatory Status

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

International Inventories

TSCA	-
DSL/NDSL	-
EINECS/ELINCS	-
ENCS	-
IECSC	-
KECL	-
PICCS	-
AICS	-
NZIoC	-

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

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

TSCA

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

International Regulations

Mexico - Grade

No information available.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not Determined

16. OTHER INFORMATION

Revision Date: 2011-11-08

Revision Note No information available.

Disclaimer

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text

End of Material Safety Data Sheet