

Section 1. Identification of the substance/mixture and of the company/undertaking

Product Details

Product Code	PX-BDR-201
Product Name	Bradford Reagent
Product Form	Mixture

Recommended Usage

Identified Uses	Scientific research/Laboratory use
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Manufacturer

Company Name	Proteogenix Lifescience Pvt Ltd
Company Address	Pearls Business Park, Netaji Subash Place, New Delhi, Delhi-110034, INDIA
Emergency Contact No.	+919821999891
Email	support@proteogenix.com

Section 2. Health hazard(s)**Substance/Mixture Classification**

GHS Classification according to Regulation (EC) No. 1272/2008

Signal Word

Danger

- H290** Corrosive to metals
- H315** Causes irritation to skin
- H319** Causes eye irritation
- H371** May cause damage to organs

Hazard Symbol**Label Elements****Physical Hazards**

Not Classified

Environmental Hazards

Not Classified

Precautionary Statements

- P280** Wear protective gloves/clothing/eye and face protection
- P260** Do not inhale mist/fumes/vapours
- P233** Keep container tightly closed

Precautionary Measures

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P303 + P352 IF ON SKIN(HAIR): Wash with plenty of water

P305 + P310 IF IN EYES: Immediately call a doctor

Other Hazards

Not applicable

Storage

P403 + P235 Store in a cool, dry, well-ventilated area

Section 3. Composition/information of ingredients

Component	Cas No.	EC No.	Classification	Weight
Phosphoric Acid Mol. Formula: H ₃ PO ₄	7664-38-2	231-633-2	H290 Metal Corrosive H314 Causes severe skin and eye damage	>=5 - <=20%
Ethanol Mol. Formula: C ₂ H ₅ OH	64-17-5	200-578-6	H225 Highly flammable liquid and vapor	>=50%

We recommend handling all the chemicals with care

Section 4. First aid measures

General Advice

- Seek Medical Attention: Consult a doctor immediately.
- Show SDS: Present this safety data sheet to the attending physician.

If Inhaled

- Move to Fresh Air: If inhaled, relocate the person to a well-ventilated area.
- Check Breathing: If not breathing, administer artificial respiration.
- Get Medical Help: Seek immediate medical assistance.

If Skin Contact

- Wash Thoroughly: Rinse the affected area with soap and plenty of water.
- Consult a doctor: Consult a physician for further evaluation.

If Eye Contact

- Rinse Immediately: Flush eyes with plenty of water for at least 15 minutes.
- Seek Medical Care: Consult a doctor promptly.

If Swallowed

- Do Not Give Anything by Mouth: If the person is unconscious, do not give anything orally.
- Rinse Mouth: Rinse the mouth with water.
- Get Medical Help: Seek immediate medical attention.

Section 5. Firefighting measures

Extinguishing Media

Suitable Extinguishing Media:

- Select extinguishing agents appropriate for the specific circumstances and the surrounding environment.

Unsuitable Extinguishing Media:

- No limitations are specified for extinguishing agents for this substance/mixture.

Special Hazards

- Thermal Decomposition: Heating may produce toxic fumes of phosphorus oxides and/or phosphine.
- Carbon Oxides: May generate carbon oxides during a fire.
- Oxides of Phosphorus: Can release oxides of phosphorus in a fire.
- Non-Combustible: The substance itself is not flammable.
- Hazardous Vapours: Ambient fires may release hazardous vapours.

Advice for Firefighters

- Wear Self-Contained Breathing Apparatus (SCBA): Only enter the danger zone with SCBA.
- Protect Skin: Maintain a safe distance or wear suitable protective clothing to prevent skin contact.

Further Information

- Suppress Vapours: Use a water spray jet to suppress gases, vapours, or mists.
- Prevent Water Contamination: Avoid contaminating surface water or groundwater systems with firefighting water.

Section 6. Accidental release measures

Personal Precautions, Protective Equipment, and Emergency Procedures

- Use PPE: Employ appropriate personal protective equipment (PPE).
- Avoid Inhalation: Prevent breathing vapours, mist, or gas.
- Ensure Ventilation: Provide adequate ventilation.

Environmental Precautions

- No special environmental precautions are necessary.

Containment and Cleanup

- Absorb and Dispose: Soak up spills with an inert absorbent material and treat as hazardous waste.
- Proper Storage: Store the collected material in suitable, closed containers for disposal.

Disposal Reference

- For disposal instructions, consult Section 13.

Section 7. Handling and storage

Precautions for Safe Handling

- Work under a fume hood
- Avoid inhalation
- Prevent vapour/aerosol Generation

Hygiene Measures

- Immediately remove and change contaminated clothing.
- Apply preventive skin protection measures.
- Wash hands and face after working with the substance.

Safe Storage Conditions

- Avoid metal containers
- Keep containers tightly closed
- Maintain recommended storage temperature (2-8°C).

Section 8. Exposure controls/personal protection

Control Parameters

Components with Workplace Control Parameters

Exposure Controls

Personal Protective Equipment

- Eye/Face Protection: Use eye protection equipment that meets appropriate government standards. Safety glasses are recommended.
- Skin and Body Protection: Wear gloves and lab coats before handling. Dispose of contaminated gloves properly and wash hands thoroughly.
- Respiratory Protection: When vapours or aerosols are generated, wear respiratory protection. Ensure proper maintenance, cleaning, and testing of respiratory protective devices according to manufacturer's instructions and document these procedures.

Control of Environmental Exposure

- Prevent Drain Discharge

Section 9. Physical and chemical properties

S.No.	Parameter	Property
1	Physical state	Liquid
2	Appearance	Brown colour
3	Odour	No data available
4	pH	No data available
5	Melting point/freezing point	No data available
6	Initial boiling point and boiling range	No data available
7	Flammability (solid, gas)	No data available
8	Upper/lower flammability or explosive limits	No data available
9	Flash point	No data available
10	Autoignition temperature	No data available
11	Decomposition temperature	No data available
12	Viscosity	No data available
13	Water solubility	No data available
14	Partition coefficient: n-octanol/water	No data available
15	Vapor pressure	No data available
16	Density	XXXXX
17	Relative vapor density	No data available
18	Particle characteristics	No data available
19	Explosive properties	Not classified as explosive
20	Oxidizing properties	None

Section 10. Stability and reactivity

Reactivity

- Information regarding reactivity is not currently available.

Chemical Stability

- Stable under ambient conditions

Possibility of Hazardous Reactions

- May react violently with water and its common reaction partners.

Conditions to Avoid

- Information on conditions to avoid is not currently available.

Incompatible Materials

- Strong bases
- Powdered metals
- Metals

Hazardous Decomposition Products

- In case of fire, refer to Section 5 for information on hazardous decomposition products.

Section 11. Toxicological Information

Acute Toxicity

- Orthophosphoric Acid LD50- 1250mg/kg; orally to rats; Level: Moderate
- Ethanol LD50- 7060mg/kg; orally; Level: Less

Skin Corrosion/Irritation

- The mixture can cause skin irritation.

Serious Eye Damage/Eye Irritation

- The mixture can cause serious eye irritation.

Respiratory or Skin Sensitization

- Information on respiratory or skin sensitization is not available.

Germ Cell Mutagenicity

- Information on germ cell mutagenicity is not available.

Carcinogenicity

- Information on carcinogenicity is not available.

Reproductive Toxicity

- Information on reproductive toxicity is not available.

Specific Target Organ Toxicity

- Single Exposure: May cause damage to organs, including the eyes and central nervous system.
- Repeated Exposure: No data available.

Aspiration Hazard

- Information on aspiration hazard is not available.

Section 12. Ecological information

Toxicity

- **Mixture:** No data available.

Persistence and Degradability

- No data available

Bioaccumulative Potential

- No data available

Mobility in Soil

- **No data available**

PBT and vPvB Assessment

- **No PBT or vPvB Components:** This substance/mixture does not contain components classified as persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

Section 13. Disposal consideration

Waste Treatment Methods

Revision Date: 21.11.24
Product Code: PX-BDR-201

Product Name: Bradford Reagent

- **Waste Reduction:** Minimize or avoid waste generation whenever possible.
- **Proper Disposal:** Empty containers or liners may retain product residues. Dispose of these materials according to approved disposal methods.
- **Regulatory Compliance:** Ensure that disposal of the product, its solutions, or by-products complies with all relevant local, regional, or national/federal regulations.

Section 14. Transport information

Un Number

ADRN 1805

IMDG 1805

IATA 1805

Revision Date: 21.11.24

Product Code: PX-BDR-201

Product Name: Bradford Reagent

UN proper shipping name

ADR/RID PHOSPHORIC ACID SOLUTION
IMDG PHOSPHORIC ACID SOLUTION
IATA Phosphoric acid, solution

Transport Hazard Class

8

Packing group

II

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

Section 15. Regulatory information

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

data available

Chemical Safety Assessment

No data available

Revision Date: 21.11.24
Product Code: PX-BDR-201

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Other information

Full text of H-Statements

- H225 Highly flammable liquid and vapor.
- H290 May be corrosive to metals.
- H301 Toxic if swallowed. H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.

Disclaimer

This safety data sheet (SDS) provides comprehensive information regarding the safe handling, storage, and disposal of Bradford Reagent. It includes detailed guidance on personal protective equipment (PPE), emergency procedures, environmental precautions, and potential hazards associated with the product. Always consult this SDS before working with the product to minimize risks and ensure safe practices.

The SDS outlines specific measures to protect yourself and the environment, such as wearing appropriate PPE, working in well-ventilated areas, and avoiding contact with incompatible materials. It also provides instructions on how to respond to spills, leaks, and emergencies. By following the guidelines provided in this document, you can contribute to a safe and healthy working environment.

--End of Safety Data Sheet--