

PHOSPHOROUS – H₂O

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product Identifier

Product form	Liquid
Chemical Name	PHOSPHOROUS – H ₂ O
Index No.	Mixture
EC No.	Mixture
CAS No.	Mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1	Relevant identified uses	Laboratory Chemical
1.2.2	Uses advised against	No additional information available.

1.3 Details of the supplier of the safety data sheet

De Bruyn Spectroscopic Solutions
70/145 Chattan Road
Glenferness
Midrand, 2191 Gauteng
South Africa

1.4 Emergency telephone number

RSA: 086 100 0366
Namibia: 080 010 0366
Other: Local Emergency Services.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification Regulation (EC) No 1272/2008 (CLP):
Not classified

Full text of hazard classes and H statements: see Section 16.

Adverse physicochemical, human health and environmental effects:
This product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2 Label Elements

Labelling (Regulation (EC) No 1272/2008)
Not required

2.3 Other hazards

Other hazards not contributing to the classification:

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable.

3.2 Mixture

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium dihydrogen phosphate	(CAS-No.) 7778-77-0 (EC No.): 231-116-4	0.01 - 10 000 µg/mL as P	Not classified

SECTION 4 FIRST AID MEASURES**4.1 Description of First Aid Measures****First aid measures general**

No information available

First aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing.

First aid measures after skin contact

Rinse skin with plenty of water.

First aid measures after eye contact

Rinse eyes with water.

First aid measures after ingestion

Rinse mouth. Obtain medical attention if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation

Unlikely to cause any effect.

Symptoms/effects after skin contact

Unlikely to cause any irritation.

Symptoms/effects after eye contact

Unlikely to cause any irritation.

Symptoms/effects after ingestion

May cause mild discomfort.

4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media

Use extinguishing agent suitable for surrounding fire..

5.2 Special hazards arising from the substance or mixture

Fire hazard

Product not combustible.

Hazardous decomposition products in case of fire

No data available.

5.3 Advice for firefighters

Protection during firefighting

Do not attempt to act without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

5.4 Further Information

No additional information.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment, and emergency procedures****6.1.1 For non-emergency personnel**

Emergency procedures

6.1.2 For emergency responders

Protective equipment

Wear suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up**Methods for cleaning up**

Cover spill area with inert material to avoid spread.

Other Information

Dispose of materials or solid residues at an authorized site.

6.4 Reference to other sections

For further information refer to section 8, 13

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling****Precautions for safe handling**Wear recommended personal protective equipment.
See section 8**Hygiene measures:**

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities**Storage conditions**

Store in a cool, dry, well-ventilated area. Keep out of direct sunlight and away from heat and incompatible materials. Keep containers tightly closed.

Incompatible materials

No data available.

Packaging

Polyethylene, polypropylene, polyvinyl chloride.

7.3**Specific end users**

No additional information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1****Exposure Limits**

No limits specified.

8.2**Exposure controls****Appropriate engineering controls**

Ensure availability of eye wash and shower in work area.

Personal protective equipment**Hand protection**

Protective gloves

Eye protection

Safety glasses.

Skin and body protection

Suitable protective clothing,

Respiratory protection

Not required for normal usage.

**Environmental exposure controls**

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1****Information on basic physical and chemical properties**

Product form

Liquid

Appearance

Clear colourless

Odour

Pungent

Odour threshold

No data available

pH

Neutral

Relative evaporation rate (butylacetate = 1)

No data available

Melting point/Freezing Point

0°C

Initial Boiling point

100°C

Flash point

Not applicable

Auto-ignition temperature

Not applicable

Flammability (solid, gas)

Not applicable

Vapour pressure

No data available

Vapour density

No data available

Relative vapour density @ 20°C

No data available

Density

1.0 g/cm³ @ 20°C

Solubility (water)

Miscible

Log Pow

No data available

Viscosity, kinematic

No data available

Viscosity, dynamic

No data available

Explosive properties

Not classified as explosive

Explosive limits

Not applicable

Oxidising properties

None

9.2**Additional information**

No additional data available.

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity**
The product is non-reactive under recommended conditions of use, storage and transport.
- 10.2 Chemical stability**
Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions**
None under recommended processing conditions.
- 10.4 Conditions to avoid**
Heat, direct sunlight, incompatible products.
- 10.5 Incompatible materials**
No data available.
- 10.6 Hazardous decomposition products.**
No data available.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects**
- | | |
|-----------------------------------|--|
| Acute toxicity (oral) | Product does not meet classification criteria. |
| Acute toxicity (Dermal) | Product does not meet classification criteria. |
| Acute toxicity (Respiratory) | Product does not meet classification criteria. |
| Skin corrosion/irritation: | Not classified. |
| Serious eye damage/irritation | Not classified |
| Respiratory or skin sensitisation | Not classified |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Not classified |
| Reproductive toxicity | Not classified. |
| STOT-SE | Not classified. |
| STOT RE | Not classified |
| Aspiration hazard | Not classified |
- 11.2 Additional Information**
Endocrine disrupting properties
This substance/mixture contains components considered to have endocrine disrupting properties affecting human health, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100: None.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1 Toxicity**
- | | |
|--------------------------|--|
| Ecology - general | Not classified. Based on available data, the classification criteria are not met.. |
| Acute aquatic toxicity | Product does not meet classification criteria. |
| Chronic aquatic toxicity | Product does not meet classification criteria. |
- 12.2 Persistence and degradability**
Not applicable for inorganic compounds.
- 12.3 Bioaccumulative potential**
Not applicable for inorganic compounds.
- 12.4 Mobility**
Mobile.
- 12.5 Results of PBT and vPvB assessment**
This substance/mixture contains no components considered to be either persistent, bio accumulative or toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.
- 12.6 Endocrine disrupting properties**
Assessment This substance/mixture contains components considered to have endocrine disrupting properties for environment , according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100: None
- 12.7 Other adverse effects**
No additional information.

SECTION 13: DISPOSAL CONSIDERATIONS**Waste treatment methods: Product and packaging**

The generation of waste should be avoided or minimised wherever possible. This material and packaging must be disposed of in a safe way in consultation with licensed waste disposal company in accordance with local legal requirements.

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / IMDG / IATA

	ADR	IMDG	IATA	Class diamond
UN Number	Not regulated	Not regulated	Not regulated	
Proper Shipping Name	Not regulated	Not regulated	Not regulated	
Hazard Class	Not regulated	Not regulated	Not regulated	
Subsidiary hazard class	Not regulated	Not regulated	Not regulated	
Packing Group	Not regulated	Not regulated	Not regulated	
Marine pollutant	No	No	No	

Limited/Excepted quantity: 1L

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use:

This product does not contain any substance listed on Annex XIV of the REACH Regulation (EC) Nr. 1907/2006. Regulation (EU) 2019/1148 on the marketing and use of explosives precursors: None

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : No restrictions.

National Regulations:

Occupational Health and Safety Act 85 of 1993.
Hazardous Chemical Agents Regulations.
SANS 10228, 10229, 10232-4.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Full text of H- and EUH-statements:

No statements	
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Revision history	Changes	Date
Revision 2	Document updated to GHS format.	30-09-2024