

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
 Glenfernness
 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.

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	Packaging	Polyethylene, polypropylene, polyvinyl chloride.
7.3	<u>Specific end users</u>	No additional information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	<u>Exposure Limits</u>	No limits specified.
8.2	<u>Exposure controls</u>	
	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.
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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/cm ³ @ 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