

SAFETY DATA SHEET

In accordance with Regulation (EU) No. 1907/2006

LuciPac A3 Water Swabs

Product Code	Product Details	Quantity
VLTA-30	LuciPac A3 Water Swabs for VLTA-01	Box of 100

1 – Identification of the substance/mixture and of the company/undertaking

1.1 Product identification

Trade name	VLTA-30
Substance name	LuciPac A3 Water
(1)	Luminescent reagent
(2)	Releasing reagent

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

Use of the substance/mixture	The product is intended for research, analysis and scientific education.
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1.3 – Details of the supplier of the safety data sheet

Company	Klipspringer Ltd
Address	Foxtail House, Ransomes Industrial Estate, Ipswich, Suffolk, UK, IP3 9RX
Telephone	01473 461 800
Email	sales@klipspringer.com

2 – Hazards identification

2.1 – Classification of the substance or mixture

Regulation (EC) No 1272/2008

- This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2 – Label elements

Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

2.3 – Other Hazards

The substances in the mixture (>0,1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII. This product does not contain a substance (>0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria. No risks worthy of mention. Please observe the information on the safety data sheet at all times.

3 – Composition/information on ingredients

3.1 – Mixtures

Chemical characterization

- Reagent mixture (Kit) , liquid and lyophilised powder.
- Product 1: Luminescent reagent: Lyophilised powder
- Product 2: Releasing reagent: liquid

Hazardous components

CAS No	Chemical Name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
145224-94-8	2-(4-Morpholino)ethanesulfonic acid (P1: Product 1)			< 0.5 %
	224-632-3			
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H302 H315 H319 H335			
27565-41-9	1,4-dimercaptobutane-2,3-diol (P1: Product 1)			< 0.1 %
	248-531-9			
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1; H302 H315 H318			
6381-92-6	Disodium edetate dihydrate (P1-2: Product 1-2)			< 0.1 %
	205-358-3			
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335			

68391-01-5	Alkyldimethylbenzylammoniumchloride (P2: Product 2)			< 0.1 %
	269-919-4			
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, Aquatic Acute 1; H312 H302 H314 H400			
7320-34-5	Potassium pyrophosphate (P1: Product 1)			< 0.1 %
	230-785-7			
	Eye Irrit. 2; H319			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
Specific Conc. Limits, M-factors and ATE			
145224-94-8	224-632-3	2-(4-Morpholino)ethanesulfonic acid (P1: Product 1)	< 0.5 %
	oral: LD50 = 316 mg/kg		
27565-41-9	248-531-9	1,4-dimercaptobutane-2,3-diol (P1: Product 1)	< 0.1 %
	oral: LD50 = 400 mg/kg		
6381-92-6	205-358-3	Disodium edetate dihydrate (P1-2: Product 1-2)	< 0.1 %
	oral: LD50 = 2050 mg/kg		
68391-01-5	269-919-4	Alkyldimethylbenzylammoniumchloride (P2: Product 2)	< 0.1 %
	dermal: LD50 = 1420 mg/kg; oral: LD50 = 240 mg/kg		
7320-34-5	230-785-7	Potassium pyrophosphate (P1: Product 1)	< 0.1 %
	dermal: LD50 = 4640 mg/kg; oral: LD50 = > 2000 mg/kg		

Further Information

- Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

4 – First aid measures

4.1 – Description of first aid measures

General information	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
After inhalation	In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.
In case of eye contact	After contact with skin, wash immediately with: Water and soap. In case of skin irritation, seek medical treatment.
In case of ingestion	Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.
After ingestion	Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). In all cases of doubt, or when symptoms persist, seek medical advice.

4.2 – Most important symptoms and effects, both acute and delayed

No information available.

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

Treat symptomatically.

5 – Fire-fighting measures

5.1 – Extinguishing media

Suitable extinguishing media	The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.
Unsuitable extinguishing media	High power water jet.

5.2 – Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

5.3 – Advice for fire fighters

In case of fire and/or explosion do not breathe fumes. In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6 – Accidental release measures

6.1 – Accidental release measures

General advice	Safe handling: see section 7
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For non-emergency personnel	Wear personal protection equipment (refer to section 8).
For emergency responders	No special measures are necessary.

6.2 – Environmental precautions

Environmental precautions	Discharge into the environment must be avoided.
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6.3 – Methods and materials for containment and cleaning up

For containment	Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.
For cleaning up	Clean contaminated objects and areas thoroughly observing environmental regulations.
Other information	Liquid: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Solid: Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal. Clear contaminated areas thoroughly.

6.4 – Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

7 – Handling and storage

7.1 – Handling

Advice on safe handling	Wear suitable protective clothing. (See section 8.)
Advice on protection against fire and explosion	Usual measures for fire prevention.
Advice on general occupational hygiene	Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work.
Further information on handling	General protection and hygiene measures: See section 8.

7.2 – Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels	Keep container tightly closed and in a well-ventilated place.
Hints on joint storage	Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances.
Further information on storage conditions	Keep/Store only in original container. Protect against: UV-radiation/sunlight. heat. Cold. Humidity Recommended storage temperature: 2-8°C

7.3 – Specific end use(s)

See section 1.

8 – Exposure controls/personal protection

8.1 – Control parameters

Additional advice on limit values	To date, no national critical limit values exist.
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8.2 – Exposure controls

Appropriate engineering controls	refer to chapter 7. No further action is necessary. Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.
Eye/face protection	Suitable eye protection: Tightly sealed safety glasses. EN 166
Hand protection	In case of prolonged or frequently repeated skin contact: Wear suitable gloves. Suitable material: FKM (fluororubber). - Thickness of glove material: 0.4 mm Breakthrough time \geq 8 h Butyl rubber. - Thickness of glove material: 0.5 mm Breakthrough time \geq 8 h CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0.5 mm Breakthrough time \geq 8 h NBR (Nitrile rubber). - Thickness of glove material: 0.35 mm Breakthrough time \geq 8 h PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm Breakthrough time \geq 8 h The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it. Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.
Skin protection	Suitable protective clothing: Lab apron. Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D)
Respiratory protection	With correct and proper use, and under normal conditions, breathing protection is not required.
Thermal hazards	No special precautionary measures are necessary.
Environmental exposure controls	This material and its container must be disposed of in a safe way.

9 – Physical and chemical properties

9.1 – Information on basic physical and chemical properties

Physical state	P1: solid; P2: liquid
Colour	P1: whitish; P2: colourless
Odour	Odourless

Odour threshold	Not determined
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Changes in the physical state

Melting point/freezing point	Not determined
Boiling point or initial boiling point and boiling range	Not determined
Sublimation point	Not determined
Softening point	Not determined
Pour point	Not determined
Flash point	Not determined

Flammability

Solid/liquid	Not determined
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Explosive properties

Lower explosion limits	Not determined
Upper explosion limits	Not determined
Auto-ignition temperature	Not determined

Self-ignition temperature

Solid	Not relevant
Gas	Not relevant
Decomposition temperature	Not determined
pH-value	(P1) = N/A; (P2) = 8,3
Viscosity / dynamic	Not determined
Viscosity / kinematic	Not determined
Flow time	Not determined
Water solubility	Easily soluble

Solubility in other solvents

Dissolution rate	Not relevant
Partition coefficient n-octanol/water	SECTION 12: Ecological information
Dispersion stability	Not relevant
Vapour pressure	Not determined
Density	Not determined
Bulk density	Not determined
Relative vapour density	Not determined
Particle characteristics	Not relevant

9.2 – Other information

Information with regard to physical hazard classes

Sustaining combustion	Not sustaining combustion
Oxidising properties	None

Other safety characteristics

Solvent separation test	Not determined
Solvent content	Not determined
Solid content	Not determined
Evaporation rate	Not determined

Further information

No information available.

10.0 – Stability and reactivity

10.1 – Reactivity

No information available.

10.2 – Chemical stability

Stable under normal storage and handling conditions.

10.3 – Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions. Refer to chapter 10.5.

10.4 – Conditions to avoid

Keep away from heat. May cause decomposition by long-term light influence.

10.5 – Incompatible materials

Materials to avoid: Oxidizing agents, strong.

10.6 – Hazardous decomposition products

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

11.0 – Toxicological information

11.1 – Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
145224-94-8	2-(4-Morpholino)ethanesulfonic acid (P1: Product 1)				
	Oral	LD50: 316 mg/kg	Bird		
27565-41-9	1,4-dimercaptobutane-2,3-diol (P1: Product 1)				
	Oral	LD50: 400 mg/kg	Rat	Merck	
6381-92-6	Disodium edetate dihydrate (P1-2: Product 1-2)				
	Oral	LD50: 2050 mg/kg	Mouse	JJP (1956) p126	
68391-01-5	Alkyldimethylbenzylammoniumchloride (P2: Product 2)				
	Oral	LD50: 240 mg/kg	Rat	GESTIS	

	Dermal	LD50: 1420 mg/kg	Rat	CHEMID	
Potassium pyrophosphate (P1: Product 1)					
	Oral		Mouse		
	Dermal		Rabbit	CHEMID	

Irritation and corrosivity

- Based on available data, the classification criteria are not met.
- Irritant effect on the eye: Not an irritant.
- Irritant effect on the skin: Not an irritant.

Sensitising effects

- Based on available data, the classification criteria are not met.
- Alkyldimethylbenzylammoniumchloride (P2: Product 2): There is Evidence for: Respiratory or skin sensitisation
- Disodium edetate dihydrate (P1-2: Product 1-2): no danger of sensitization.

Carcinogenic/mutagenic/toxic effects for reproduction

- Based on available data, the classification criteria are not met.
- Alkyldimethylbenzylammoniumchloride (P2: Product 2): There is Evidence for: In-vitro mutagenicity
- Disodium edetate dihydrate (P2: Product 2): No experimental indications of mutagenicity in-vitro exist.

STOT-single exposure

- Based on available data, the classification criteria are not met.

STOT-repeated exposure

- Based on available data, the classification criteria are not met.
- Alkyldimethylbenzylammoniumchloride (P2: Product 2):
- Developmental toxicity/teratogenicity/Reproductive toxicity:
- NOAEL (Rat.oral.) = 50 mg/ kg [J Am Coll Toxicol 8 (4): 589-625 (1989)]
- NOAEL (Rat.dermal.) = 10 mg/kg (90d) [BIBRA Information Department]
- Disodium edetate dihydrate (P1-2: Product 1-2):
- Subchronic oral toxicity (90d): NOAEL = 500 mg/kg (Rat.) [ECHA]
- Potassium pyrophosphate (P1: Product 1):
- Chronic oral toxicity (Rat.): NOAEL = 50mg/kg (365d) [Hazardous Substances Data Bank]

Aspiration hazard

- Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

- There are no data available on the preparation/mixture itself.

11.2 – Information on other hazards

Endocrine disrupting properties	This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
Other information	No data available.

12.0 – Ecological information

12.1 – Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[H] [D]	Species	Source	Method
27565-41-9	1,4-dimercaptobutane-2,3-diol (P1: Product 1)					
	Acute crustacea toxicity	EC50: 27 mg/l	48 h		Gestis	
6381-92-6	Disodium edetate dihydrate (P1-2: Product 1-2)					
	Acute fish toxicity	LC50: 41-532 mg/l	96 h	Lepomis macrochirus	ECHA (64-02-8)	
	Acute crustacea toxicity	EC50: 113 mg/l	48 h	Daphnia magna	Gestis (64-02-8)	
68391-01-5	Alkyldimethylbenzylammoniumchloride (P2: Product 2)					
	Acute fish toxicity	LC50: 0.31 – 1.25 mg/l	96 h	GESTIS		
	Acute algae toxicity	ErC50: 0.05 – 0.54 mg/l	72 h	GESTIS		
	Acute crustacea toxicity	EC50: 0.01 – 0.16 mg/l	48 h	GESTIS		
7320-34-5	Potassium pyrophosphate (P1: Product 1)					
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	ECHA dossier	

12.2 – Persistence and degradability

- Disodium edetate dihydrate (P1-2: Product 1-2):

- 55% (20 d) Guideline: PN-88/C-05561; Parameter: COD

12.3 – Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	6381-92-6
Chemical name	Disodium edetate dihydrate (P1-2: Product 1-2)
Log Pow	3.86

12.4 – Mobility in soil

No data available

12.5 – Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.6 – Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria. The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7 – Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains

13.0 – Disposal considerations

13.1 – Waste treatment methods

Disposal recommendations	Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Control report for waste code/waste marking according to (EWC) European Waste Catalogue:	
List of Wastes Code - residues/unused products	160509	WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
List of Wastes Code - used product	160509	WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
List of Wastes Code - contaminated packaging	150110	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging

	(including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste
Contaminated packaging	Non-contaminated packages may be recycled.

14.0 – Transport information

14.1 – UN-number

UN-number	Not restricted
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14.2 – Proper shipping name

UN proper shipping name	Not restricted
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14.3 – Transport classes

Transport hazard class(es)	No dangerous good in sense of these transport regulations.
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14.4 – Packaging group

Packaging group	No dangerous good in sense of these transport regulations.
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14.5 – Environmental hazards

Environmental hazardous	No
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14.6 – Special precautions for user

Refer to chapter 6 – 8

14.7 – Maritime transport in bulk according to IMO instruments

Not relevant

15.0 – Regulatory information

15.1 – Safety, health and environmental regulations specific for the substance or mixture.

EU regulatory information

2010/75/EU (VOC)	No information available
2004/42/EC (VOC)	No information available

Information according to 2012/18/EU (SEVESO III)	Not subject to 2012/18/EU (SEVESO III)
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Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878) This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [CLP]. REACH 1907/2006 Appendix XVII, No (mixture): not relevant

National regulatory information

Water hazard class (D)	Non-hazardous to water
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16.0 – Other information

Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- AGW: Arbeitsplatzgrenzwert
- CAS: Chemical Abstracts Service
- CLP: Classification, Labelling and Packaging of substances and mixtures
- DNEL: Derived No Effect Level d: day(s)
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- ECHA: European Chemicals Agency
- EWC: European Waste Catalogue
- IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany) h: hour

- LOAEL: Lowest observed adverse effect level
- LOAEC: Lowest observed adverse effect concentration
- LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent
- NOAEL: No observed adverse effect level
- NOAEC: No observed adverse effect concentration
- NLP: No-Longer Polymers
- N/A: not applicable
- OECD: Organisation for Economic Co-operation and Development
- PNEC: predicted no effect concentration
- PBT: Persistent bioaccumulative toxic
- RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- REACH: Registration, Evaluation, Authorisation of Chemicals
- SVHC: substance of very high concern
- TRGS: Technische Regeln für Gefahrstoffe
- UN: United Nations
- VOC: Volatile Organic Compounds


Relevant H and EUH statements (number and full text):

H302	Harmful if swallowed.
H312	Harmful 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.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

This document was prepared on behalf of Klipspringer Ltd and the information included is provided in good faith and to the best of our knowledge correct at the time of writing. Klipspringer Ltd offers the information within this document as a guide only, and it does not represent any guarantee of the prescribed products in the sense of legal guaranteed relations. Klipspringer Ltd accepts no liability resulting from this document. It is the responsibility of the end user to ensure the items purchased are suitable for the intended application.

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Safety Data Sheet in accordance with Regulation (EU) No. 2015/830 and Regulation (EC) No. 1272/2008

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