

Section 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Product name:** VM PHOSPHATE REAGENT LM4410-H**Product code:** 500478509**Synonyms:** WATERTEST: 500478513**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of substance / mixture:** PROC15: Use as laboratory reagent**1.3. Details of the supplier of the safety data sheet****Company name:** Watertest Systems Pty Ltd

Unit 4, 13 Swaffham Road

Minto, NSW 2566

Australia

Tel: +612 8706 5400**Fax:** +612 8706 5499**Email:** info@watertestsystems.com.au**1.4. Emergency telephone number****Emergency tel:** Australian Poisons Info (Freecall) - 131126

New Zealand 0800 POISON / 0800 764 766)

Section 2: Hazards identification**2.1. Classification of the substance or mixture****Classification under CLP:** Met. Corr. 1: H290; Acute Tox. 4: H332; Skin Corr. 1A: H314; Eye Dam. 1: H318; STOT SE 3: H335**Most important adverse effects:** May be corrosive to metals. Harmful if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.**2.2. Label elements****Label elements:****Hazard statements:** H290: May be corrosive to metals.

H332: Harmful if inhaled.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

Hazard pictograms: GHS05: Corrosion

GHS07: Exclamation mark

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Signal words: Danger

Precautionary statements: P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P103: Read label before use.
P260: Do not breathe dust/fumes/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER/doctor.
P363: Wash contaminated clothing before reuse.
P405: Store locked up.
P403+233: Store in a well-ventilated place. Keep container tightly closed.
P501: Dispose of contents/container to hazardous or special waste collection point.

2.3. Other hazards

Other hazards: Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS). HAZARDOUS CHEMICAL. DANGEROUS GOODS. Classified according to the Model Work and Safety Regulations 2011 and the ADG Code (7th Ed). Classified as hazardous according to criteria of Safe Work NZ (HSNO) - HAZARDOUS SUBSTANCE. Dangerous Goods.

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

NITRIC ACID

EINECS	CAS	PBT / WEL	CLP Classification	Percent
231-714-2	7697-37-2	-	Ox. Liq. 2: H272; Skin Corr. 1A: H314; -: EUH071	10-30%

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AMMONIUM MOLYBDATE TETRAHYDRATE

234-320-9	12054-85-2	-	STOT SE 3: H335; Eye Irrit. 2: H319; Acute Tox. 4: H302; Skin Irrit. 2: H315	1-10%
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Non-classified ingredients:

AMMONIUM METAVANADATE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
232-261-3	7803-55-6	-	STOT SE 3: H335; Acute Tox. 1: H330; Acute Tox. 3: H301; Skin Irrit. 2: H315; Eye Irrit. 2: H319	<1%

Section 4: First aid measures

4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Seek medical treatment immediately.
- Eye contact:** If in eyes, hold eyelids apart and flush the eyes immediately with running water. Continue flushing eyes until all contaminants are washed off completely. Transfer to hospital for specialist examination.
- Ingestion:** Call poisons information on 131126 or physician immediately. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transfer to hospital as soon as possible. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. THIS MUST DEFINITELY BE LEFT TO A DOCTOR OR MEDICAL PRACTITIONER.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131126; New Zealand 0800 764766; outside Australia +618 131126) or a doctor at once.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Dry chemical powder. Carbon dioxide. Alcohol resistant foam. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes. Ammonia, Nitrogen oxides (NO_x), Vanadium Oxides (VO_x), Molybdenum Oxides (MO_x).

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Ensure adequate ventilation. Avoid breathing dust, mist or vapours. Keep unprotected persons away. Avoid contact with skin and eyes. Wear appropriate protective gloves, eye protection and clothing to minimise exposure. Increase ventilation.

6.2. Environmental precautions

Environmental precautions: Do not allow large quantities to enter local drainage systems Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Neutralise with Soda Ash or Bicarbonate of Soda, testing periodically with litmus paper, pick up the slurry into a closed container and dispose of in hazardous industrial waste. Ventilate area and wash spill site after material pickup is complete.

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6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.
Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.
Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): PC21: Laboratory chemicals.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

NITRIC ACID...100%

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
AUST	-	2.6 mg/m ³	-	-

AMMONIUM MOLYBDATE TETRAHYDRATE

AUST	-	-	5 (mg/m ³)	-
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DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Handle in accordance with good industrial hygiene safety practice. Wash hands before breaks and at the end of workday.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance. Wash hands during breaks and at the end of the work. After use of gloves apply skin-cleaning agents and skin cosmetics.

Eye protection: Safety glasses with side-shields. Ensure eye bath is to hand. Eye protection devices should conform to relevant regulations.
Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

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Skin protection: Impermeable protective clothing. Ensure safety shower is to hand.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale yellow

Odour: Odourless

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: Miscible

Viscosity: No data available.

Boiling point/range°C: No data available.

Melting point/range°C: No data available.

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: Not applicable.

Part.coeff. n-octanol/water: No data available.

Autoflammability°C: Not applicable.

Vapour pressure: No data available.

Relative density: 1.06

pH: < 1

VOC g/l: No data available.

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: To avoid thermal decomposition do not overheat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

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11.1. Information on toxicological effects

Hazardous ingredients:

AMMONIUM METAVANADATE

DERMAL	RAT	LD50	2102	mg/kg
IHL	RAT	4H LC50	7800	µg/kg
IPR	RAT	LD50	18	mg/kg
ORL	MUS	LD50	25	mg/kg
ORL	RAT	LD50	58.1	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
STOT-single exposure	INH	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

AMMONIUM MOLYBDATE TETRAHYDRATE

Daphnia magna (Water flea)	48H EC50	140	mg/l
Desmodesmus subspicatus (green algae)	72H ErC50	41	mg/l
Oncorhynchus mykiss (rainbow trout) -	96H LC0	320	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	420	mg/l

12.2. Persistence and degradability

Persistence and degradability: No data available.

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12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Harmful to aquatic organisms.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Add the concentrated product to water slowly with constant agitation. Neutralise with Sodium Carbonate or Slaked Lime checking with litmus paper to confirm neutralisation. Dispose of wash water at a hazardous waste disposal point. Local and National regulations should be considered and followed when disposing of this chemical.

Disposal of packaging: Empty containers must be decontaminated by rinsing with water. Treat the cleaning water following the above method for waste product. Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN2031

14.2. UN proper shipping name

Shipping name: NITRIC ACID (other than red fuming, with 20% or less nitric acid)

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: II

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

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Section 15: Regulatory information

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

Specific regulations: HAZARDOUS CHEMICAL According to the model WHS Regulations and Dangerous Goods according to the ADG Code (7th Ed). All components of this product are listed on the Australian Inventory of Chemical Substances (AICS). New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances Regulations 2001. New Zealand Group Standard Name : Laboratory Chemicals and Reagent Kits Group Standard 2006. HSNO Approval Number : HSR002596. All components of this product are listed on the New Zealand Inventory of Chemicals (NZIoC). Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Malaysian Regulations 2013

15.2. Chemical Safety Assessment

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

Phrases used in s.2 and s.3: EUH071: Corrosive to the respiratory tract.

H272: May intensify fire; oxidiser.

H290: May be corrosive to metals.

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H330: Fatal if inhaled.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

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