



Safety Data Sheet

Date of Issue: 20.07.2021

Date of Expiry: 20.07.2026

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name : ECP Limited
Address : PO Box 34125, Birkenhead, Auckland 0746
Telephone : +64 9 480 4386
Facsimile : +64 9 480 4385
Emergency phone number : 0800 243 622 (24 hours)

Product Name	Lead (II) Nitrate
Product Code	29601
CAS No.	10099-74-8

Recommended use : Laboratory Investigations

2: Hazard's identification

2.1 GHS Classification

Oxidizing liquids or solids (Category B), H272
Acute toxicity, Oral (Category D), H302
Acute toxicity, Inhalation (Category D), H332
Serious eye damage (Category A), H318
Toxic to Reproduction (Category A), H360
Specific Target Organ Toxicity (Category B), H373
Aquatic toxicity (Acute or Chronic) (Category A), H410

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word : **Danger**

Hazard statement(s)

H272 May intensify fire; oxidizer.
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H360 May damage fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat.
P220 Keep/Store away from clothing/ combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

- P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

- P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 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.
P330 Rinse mouth.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 Collect spillage.

Storage

- P405 Store locked up.

Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.
Restricted to professional users.

3: Composition/information on ingredients

3.1 Substances

Formula	:	N2O6Pb
Molecular weight:		331.21 g/mol
CAS-No.	:	10099-74-8
EC-No.	:	233-245-9
Index-No.	:	082-001-00-6

4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x), Lead oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure – obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Component	CAS No	Value	Control Parameters	Basis
Lead(II) nitrate	10099-74-8	WES-TWA	0.05 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

Remarks : Carcinogen - suspected human carcinogen Exposure can also be estimated by biological monitoring

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	
Form	: solid
Colour	: colourless
b) Odour	: odourless
c) Odour Threshold	: No data available
d) pH	: 3 - 4 at 50 g/l at 20 °C
e) Melting point/freezing point	
Melting point/range	: 470 °C - dec.
f) Initial boiling point and boiling range	: > 500 °C at 1,013 hPa - OECD Test Guideline 103
g) Flash point	: does not flash
h) Evaporation rate	: Not applicable
i) Flammability (solid,gas)	: The product is not flammable. - Flammability (solids)
j) Upper/lower flammability or explosive limits	: No data available
k) Vapour pressure	: at 20 °C - OECD Test Guideline 104low
l) Vapour density	: Not applicable
m) Relative density	: 4.49 g/cm ³ at 20 °C - OECD Test Guideline 109
n) Water solubility	: 486 g/l at 20 °C - OECD Test Guideline 105
o) Partition coefficient: n-octanol/water	: - Not applicable
p) Auto-ignition temperature	: 400 °C - NF T 20-036
q) Decomposition temperature	: No data available
r) Viscosity	: No data available
s) Explosive properties	: No data available
t) Oxidizing properties	: The substance or mixture is classified as oxidizing with the category 2.

9.2 Other safety information

Relative vapour density : Not applicable

10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Lead oxides

Other decomposition products - No data available

In the event of fire: see section 5

11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

Skin - In vitro study

Result: non-corrosive

(OECD Test Guideline 431)

Skin - In vitro study

Result: No skin irritation

(OECD Test Guideline 439)

Serious eye damage/eye irritation

Eyes - In vitro study

Result: Severe irritations - 4 h

(OECD Test Guideline 437)

Respiratory or skin sensitisation

(in analogy to similar products)

Germ cell mutagenicity

Carcinogenicity

IARC: 2A - Group 2A: Probably carcinogenic to humans (Lead nitrate)

Reproductive toxicity

May damage the unborn child. Positive evidence from human epidemiological studies.

May damage fertility. Positive evidence from human epidemiological studies.

Specific target organ toxicity - single exposure

Acute inhalation toxicity - Possible damages: mucosal irritations

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. - Blood, Central nervous system, Immune system, Kidney

Aspiration hazard

Additional Information

RTECS: OG2100000

Lead salts have been reported to cross the placenta and to induce embryo- and foetal mortality.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:

After absorption:

After a latency period:

metallic taste, Salivation, Vomiting, drop in blood pressure

A lethal effect is possible after the uptake of large quantities.

The following applies to lead compounds in general: Due to the poor absorbability via the gastrointestinal tract, only very high doses lead to acute cases of intoxication. After a latency period of several hours, metallic taste, nausea, vomiting, and colic's occur, in many instances followed by shock. Chronic uptake causes peripheral muscular weakness ("drop-wrist"), anaemia, and central-nervous disorders. Women of child-bearing age should not be exposed to the substance over longer periods of time (observe critical threshold). The following applies to nitrites/nitrates in general: methemoglobinemia after the uptake of large quantities.

Other dangerous properties cannot be excluded.

This substance should be handled with particular care.

12: Ecological information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 1.8 mg/l - 48 h

Remarks: (ECOTOX Database)

Toxicity to algae

EC50 - algae - 0.024 - 0.029 mg/l - 28 h

Remarks: (Lit.)

12.2 Persistence and degradability

12.3 Bioaccumulative potential

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of drinking- water supplies.

Discharge into the environment must be avoided.

13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Contaminated packaging

Dispose of as unused product.

14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1469	1469	1469
14.2	UN Proper Shipping name	LEAD NITRATE	LEAD NITRATE	Lead nitrate
14.3	Transport Hazard Class	5.1 (6.1)	5.1 (6.1)	5.1 (6.1)
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	Yes	Yes	Yes
14.6	Special precautions for user	None		

15: Regulatory information

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

National regulatory information

HSNO Approval Code: HSR001328

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits

Group Standard 2006
Tracking Required: not required
Approved Handler Cert.: not required

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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