An ISO 9001: 2015 & GMP Certified Company Office: No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

Tel: + 91 98200 41841 Email: info@ottokemi.com Web: www.ottokemi.com

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers Product Name: Lead nitrate, 99%

Product Code: L 1395 CAS No: 10099-74-8

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

Use: Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification OTTO CHEMIE PVT LTD

No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number

Phone no.: + 91 98200 41841 (10:00 am - 06:00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Acute toxicity, (Category 4) H302: Harmful if swallowed H332: Harmful if inhaled. Acute toxicity, (Category 4)

Serious eye damage, (Category H318: Causes serious eye damage.

Skin sensitization, (Sub-category H317: May cause an allergic skin reaction

1B). Carcinogenicity, (Category 2)

Reproductive toxicity, (Category

1A)

Specific target organ toxicity repeated exposure, (Category 1),

Blood, Central nervous system, Immune system, Kidney

Short-term (acute) aquatic hazard, (Category 1)

Long-term (chronic) aquatic

H410: Very toxic to aquatic life with long

H351: Suspected of causing cancer.

prolonged or repeated exposure.

H400: Very toxic to aquatic life.

H360Df: May damage the unborn child. Suspected of damaging fertility.

H372: Causes damage to organs through

lasting effects.

hazard, (Category 1) 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram Signal Word

Hazard Statements

H302 + H332

Harmful if swallowed or if inhaled. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H351 Suspected of causing cancer.

May damage the unborn child. Suspected of damaging fertility. H360Df H372 Causes damage to organs (Blood, Central nervous system,

Immune system, Kidney) through prolonged or repeated

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P273 Avoid release to the environment.

Wear protective gloves/ protective clothing/ eye protection/ face

protection.

P301 + P312 F SWALLOWED: Call a POISON CENTER/ doctor if you feel

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable

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for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P308 + P313IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard

Statements none

Restricted to professional users.

"As from 24 August 2023 adequate training is required before

industrial or professional use."

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word

Hazard Statements

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated

exposure

Danger

H318 Causes serious eye damage.

H360Df May damage the unborn child. Suspected of damaging fertility.

Precautionary Statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face

protection.

Remove contact lenses, if present and easy to do. Continue

rinsing

none

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard

Statements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at

levels of 0.1% or higher. Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 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

Component	Classification	Concentration
Lead(II) nitrate Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
CAS-No 10099-74-8 EC-No 233-245-9	Acute Tox. 4; Eye Dam. 1; Skin Sens. 1B; Carc. 2;Repr. 1A; STOT RE 1;Aquatic Acute 1; Aquatic Chronic 1; H302, H332,H318, H317, H351,H360Df, H372, H400, H410Concentration limits: >= 2,5 %: Repr. 2, H361f; >= 0,5 %: STOT	<= 100 %

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For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NOx)

Lead oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area.

Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized

persons. Do not store near combustible materials.

Storage class

Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

7.3 Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested: KCL 741 Dermatril® L

Body Protection protective clothing Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) 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 such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties a) Physical state

b) Color colorlesswhite

c) Odor odorless d) Melting Melting point/ range: 470 °C - dec.

point/freezing point

e) Initial boiling point > 500 °C at 1.023 hPa - Regulation (EC) No. 440/2008, Annex, A.2

and boiling range f) Flammability (solid, No data available gas)

g) Upper/lower No data available flammability or

h) Flash point Not applicable i) Autoignition 400 °C

at 1.023 hPa - Relative self-ignition temperature for solids temperature

j) Decomposition No data available temperature

3 - 4 at 50 g/l at 20 °C k) pH I) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: Not applicable

486 g/l at 20 °C - Regulation (EC) No. 440/2008, Annex, A.6-

completely soluble

- Not applicable for inorganic substances

0,1 hPa at 20 °C - OECD Test Guideline 104 - low 4,49 g/cm3 at 20 °C - OECD Test Guideline 109 4,77 at 23,6 °C - Regulation (EC) No. 440/2008, Annex, A.3

Not applicable

No data available

Not classified as explosive.

The substance or mixture is classified as oxidizing with the category 2.

9.2 Other safety information

t) Oxidizing properties

Relative vapor density Not applicable

explosive limits

m) Water solubility

n) Partition coefficient: n-octanol/water

o) Vapor pressure < p) Density

Relative density g) Relative vapor

characteristics s) Explosive properties

density r) Particle

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Risk of explosion with:

organic combustible substances

ammonium compounds

acetates

Alcohols **Esters**

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg

Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity

to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish static test LC50 - Oncorhynchus mykiss (rainbow trout) - 0,1 mg/l -

Remarks: (ECHA) 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.) Toxicity to

fish(Chronic toxicity)

semi-static test NOEC - Pimephales promelas (fathead minnow) -

1,337 mg/l - 7 d Remarks: (ECHA) Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)

semi-static test NOEC - Ceriodaphnia dubia (water flea) - 0,0224

mg/l - 7 d (US-EPA)

12.2 Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

Product:

Assessment: The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse 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.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1469 IMDG: 1469 IATA: 1469

14.2 UN proper shipping name
ADR/RID: LEAD NITRATE

IMDG: LEAD NITRATE
IATA: Lead nitrate

14.3 Transport hazard class(es)

ADR/RID: 5.1 (6.1) IMDG: 5.1 (6.1) IATA: 5.1 (6.1)

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user Tunnel restriction code : (E) Further information : No data available

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 REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

: Lead(II) nitrate

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REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

: Lead(II) nitrate

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

: Lead(II) nitrate

National legislation

Seveso III: Directive 2012/18/EU of the

European Parliament and of the Council

on the control of major-accident hazards

involving dangerous substances.

E1 ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

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For this product a chemical safety assessment was not carried out

Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

