# MATERIAL SAFETY DATA SHEET

## LEAD NITRATE

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name : Lead(II) nitrate
Index-No. : 082-001-00-6
CAS-No. : 10099-74-8

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

Identified uses : Laboratory chemicals, Manufacture of substances

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#### 1.3 Details of the supplier of the safety data sheet

**COSMO CHEMISTRY**
Office No. 713, Millennium Business Hub,
Sarthana Jakatnaka, Varachha Main Road,
Surat, Gujarat, India – 395006
Phone : +91 979797 7958
e-mail : info@cosmochemistry.com

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### 2. HAZARDS IDENTIFICATION

#### 2.1 Potential Acute Health Effects:

Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant),
of inhalation. Slightly hazardous in case of skin contact (permeator). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation.

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#### 2.2 Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH, 2B (Possible for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [SUSPECTED]. The substance may be toxic to blood, kidneys, the reproductive

system, peripheral nervous system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

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**2.3 Other hazards - none**

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Formula : N2O6Pb
Molecular Weight : 331,21 g/mol

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**Component Concentration**

Lead 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
Index-No. 082-001-00-6

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## 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. 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.

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Lead salts have been reported to cross the placenta and to induce embryo- and
feto- mortality.

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

no data available

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**5. FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

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

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**5.2 Special hazards arising from the substance or mixture**

nitrogen oxides (NOx), Lead oxides

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**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

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**5.4 Further information**

Use water spray to cool unopened containers.

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**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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**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.

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**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.

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**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.

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**7.2 Conditions for safe storage, including any incompatibilities**

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

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**7.3 Specific end use(s)**

no data available

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

Components with workplace control parameters

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**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.

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**Personal protective equipment**

Eye/face protection

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

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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.

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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.

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Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (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.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

a) Appearance Form: solid
Colour: white

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting point/freezing point
Melting point/range: 470 °C - dec.

f) Initial boiling point and boiling range
no data available

g) Flash point no data available

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower flammability or explosive limits
no data available

k) Vapour pressure no data available

l) Vapour density no data available

m) Relative density 4,53 g/cm3

n) Water solubility 500 g/l

o) Partition coefficient: n-octanol/water

p) Auto-ignition temperature

q) Decomposition temperature

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.

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**9.2 Other safety information**

Solubility in other solvents Ethanol 0.4g/Methanol 13.3 g

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**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

no data available

**10.2 Chemical stability**

no data available

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

no data available

**10.5 Incompatible materials**

Strong reducing agents, Organic materials, Powdered metals

**10.6 Hazardous decomposition products**

Other decomposition products - no data available

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**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

Acute toxicity

LD50 Intravenous - rat - 93 mg/kg
LD50 Intraperitoneal - mouse - 74 mg/kg

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Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

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**Carcinogenicity**

IARC: 2B - Group 2B: Possibly carcinogenic to humans
Re-evaluation of inorganic lead compounds, IARC Monograph (Vol. 87) (February 2004) (Lead nitrate)

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

IARC: 2B - Group 2B: Possibly carcinogenic to humans
Re-evaluation of inorganic lead compounds, IARC Monograph (Vol. 87) (February 2004) (Lead nitrate)

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

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**Reproductive toxicity**

Known human reproductive toxicant

Developmental Toxicity - rat

Specific Developmental Abnormalities: Central nervous system.

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Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
May cause damage to organs through prolonged or repeated exposure.

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Aspiration hazard
no data available

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**Potential health effects**

Inhalation Harmful if inhaled. May cause respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin Harmful if absorbed through skin. May cause skin irritation.

Eyes Causes eye burns.

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**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Lead salts have been reported to cross the placenta and to induce embryo- and feto- mortality.

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**Additional Information**

RTECS: OG2100000

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish
LC50 - Oncorhynchus mykiss (rainbow trout) - 1,5 mg/l - 96,0 h

LC50 - Cyprinus carpio (Carp) - 0,4 - 1,3 mg/l - 96,0 h

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Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 0,5 - 2,0 mg/l - 48 h

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### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

no data available

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### 12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

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

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

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

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Contaminated packaging
Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: 1469 IMDG: 1469 IATA: 1469

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### 14.2 UN proper shipping name

ADR/RID: LEAD NITRATE
IMDG: LEAD NITRATE
IATA: Lead nitrate

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### 14.3 Transport hazard class(es)

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

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### 14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

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### 14.5 Environmental hazards

ADR/RID: yes IMDG Marine Pollutant: yes IATA: no

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### 14.6 Special precautions for user

no data available

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## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

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**15.2 Chemical Safety Assessment**

no data available

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**16. OTHER INFORMATION**

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. L S Chemicals and Pharmaceuticals and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.