

# Material Safety Data Sheet

## Lead Nitrate, Reagent ACS (Crystals)

ACC# 00845

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Lead Nitrate, Reagent ACS (Crystals)**Catalog Numbers:** AC423850000, AC423850050, AC423855000**Synonyms:** Lead (II) Nitrate; Lead Dinitrate; Nitric Acid Lead (II) Salt.**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
10099-74-8	Lead Nitrate	>99	233-245-9

**Hazard Symbols:** T**Risk Phrases:** 20/22 33 61 62

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white. **Danger!** Strong oxidizer. Contact with other material may cause a fire. May cause eye and skin irritation. May cause digestive tract irritation with nausea, vomiting, and diarrhea. May cause blood abnormalities. May cause kidney damage. May cause central nervous system effects. May cause cancer based on animal studies. May cause reproductive and fetal effects.

**Target Organs:** Blood, kidneys, central nervous system, respiratory system, gastrointestinal system, blood forming organs, nervous system, reproductive system.

#### Potential Health Effects

**Eye:** May cause eye irritation.**Skin:** Causes skin irritation.**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause effects similar to those for inhalation exposure.**Inhalation:** May cause methemoglobinemia, cyanosis, convulsions, tachycardia, dyspnea (labored breathing), and death. May cause adverse central nervous system effects including headache, convulsions, and possible death. May cause kidney damage. May cause anemia.**Chronic:** Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Prolonged or repeated exposure may cause adverse reproductive effects. May cause liver and

kidney damage. Prolonged exposure may cause anemia and methemoglobinemia, characterized by dizziness, drowsiness, headache, breath shortness, cyanosis (bluish skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown colored blood. Chronic exposure to lead may result in plumbism which is characterized by lead line in gum, headache, muscle weakness, mental changes.

## Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** The use of Calcium disodium EDTA as a chelating agent should be determined by qualified medical personnel. The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel. The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes. Oxidizer. Greatly increases the burning rate of combustible materials.

**Extinguishing Media:** Use water only!

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Keep away from clothing and other combustible materials.

**Storage:** Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lead Nitrate	none listed	none listed	none listed

**OSHA Vacated PELs:** Lead Nitrate: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** white

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Negligible.

**Vapor Density:** Not available.

**Evaporation Rate:** Negligible.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 470 deg C dec

**Autoignition Temperature:** Not available.

**Flash Point:** 290 deg C ( 554.00 deg F)

**Decomposition Temperature:** 290 deg C

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Reactivity: 0

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**Solubility:** 1g/2.5l absolute alcohol, 1g/75ml methan

**Specific Gravity/Density:** 4.5300g/cm<sup>3</sup>

**Molecular Formula:** PbN<sub>2</sub>O<sub>6</sub>

**Molecular Weight:** 331.20

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Decomposes when heated.

**Conditions to Avoid:** Incompatible materials, combustible materials, temperatures above 200°C.

**Incompatibilities with Other Materials:** Forms an explosive compound with: ammonium thiocyanate, potassium acetate, or lead hypophosphite. Other incompatibles include: aluminum, alkyl esters, carbon,

hydroxylamine, phosphorus, phosphinates, sulfur, tin chloride.

**Hazardous Decomposition Products:** Nitrogen oxides, lead/lead oxides.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 10099-74-8: OG2100000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 10099-74-8:

**ACGIH:** A3 - Animal Carcinogen (as Pb) (listed as Lead, inorganic compounds).

**California:** carcinogen; initial date 10/1/92 (listed as Lead).

**OSHA:** Possible select carcinogen (listed as Lead, inorganic compounds).

**IARC:** Group 2B carcinogen (listed as Lead, inorganic compounds).

**Epidemiology:** Repeated exposure to lead has caused many toxic effects including: neurological changes, kidney damage, and blood abnormalities.

**Teratogenicity:** Effects on Newborn: Behavioral, oral-rat TDLo=43mg/kg; Growth Statistics, oral-rat TDLo=13g/kg. Embryo or Fetus: Death, intravenous(ivn)-hamster TDLo= 50mg/kg. Specific Developmental Abnormalities: Cardiovascular and Homeostasis, ivn-hamster TDLo=50mg/kg; Central Nervous System, oral-rat TDLo=36mg/kg; Musculoskeletal, ivn-rat TDLo=25mg/kg.

**Reproductive Effects:** Fertility: Post-implantation mortality, ivn-rat TDLo=25mg/kg. Maternal Effects: Parturition, ivn-rat TDLo=39964ug/kg.

**Neurotoxicity:** No information available.

**Mutagenicity:** DNA Inhibition: rat liver 100umol/L Gene Mutation in Mammalian Cells: mouse lymphocyte 450mg/L

**Other Studies:** Please refer to RTECS OG1750000 for additional information.

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information reported.

**Physical:** No information available.

**Other:** None.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	(TOXIC), LEAD NITRATE				LEAD NITRATE
<b>Hazard Class:</b>	5.1				5.1(6.1) (9.2)
<b>UN Number:</b>	UN1469				UN1469
<b>Packing Group:</b>	II				II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 10099-74-8 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### SARA

#### Section 302 (RQ)

CAS# 10099-74-8: final RQ = 10 pounds (4.54 kg)

#### Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 10099-74-8: acute, chronic, flammable, reactive.

#### Section 313

This material contains Lead Nitrate (listed as \*\* undefined \*\*), 99%, (CAS# 10099-74-8) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

CAS# 10099-74-8 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 10099-74-8 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Massachusetts.

WARNING: This product contains Lead Nitrate, listed as `\*\* undefined \*\*', a chemical known to the state of California to cause birth defects or other reproductive harm. California No Significant Risk Level: None of the chemicals in this product are listed. **European/International Regulations**

### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T

#### Risk Phrases:

R 20/22 Harmful by inhalation and if swallowed.

R 33 Danger of cumulative effects.

R 61 May cause harm to the unborn child.

R 62 Possible risk of impaired fertility.

#### Safety Phrases:

S 13 Keep away from food, drink and animal feeding stuffs.

S 20/21 When using do not eat, drink or smoke.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 53 Avoid exposure - obtain special instructions before use.

### WGK (Water Danger/Protection)

CAS# 10099-74-8: 2

#### Canada

CAS# 10099-74-8 is listed on Canada's DSL List. CAS# 10099-74-8 is listed on Canada's DSL List. This product does not have a WHMIS classification.

CAS# 10099-74-8 is listed on Canada's Ingredient Disclosure List.

#### Exposure Limits

CAS# 10099-74-8: OEL-ARAB Republic of Egypt:TWA 0.05 mg(Pb)/m<sup>3</sup> OEL-AUSTRALIA:TWA 0.15 mg(Pb)/m<sup>3</sup> OEL-AUSTRIA:TWA 0.1 mg(Pb)/m<sup>3</sup> OEL-BELGIUM:TWA 0.15 mg(Pb)/m<sup>3</sup> OEL-DENMARK:TWA 0.1 mg(Pb)/m<sup>3</sup> OEL-FINLAND:TWA 0.1 mg(Pb)/m<sup>3</sup> OEL-FRANCE:TWA 0.15 mg(Pb)/m<sup>3</sup> OEL-GERMANY:TWA 0.1 mg(Pb)/m<sup>3</sup> OEL-HUNGARY:STEL 0.04 mg(Pb)/m<sup>3</sup>;Carcinogen OEL-THE PHILIPPINES:TWA 0.15 mg(Pb)/m<sup>3</sup> OEL-RUSSIA:STEL 0.005 ppm (0.01 mg(Pb)/m<sup>3</sup>) OEL-SWEDEN:TWA 0.05 mg(Pb)/m<sup>3</sup> (resp. dust) OEL-SWEDEN:TWA 0.1 mg(Pb)/m<sup>3</sup> (total dust) OEL-SWITZERLAND:TWA 0.1 mg(Pb)/m<sup>3</sup> OEL-THAILAND:TWA 0.2 mg(Pb)/m<sup>3</sup> OEL-TURKEY:TWA 0.2 mg(Pb)/m<sup>3</sup> OEL-UNITED KINGDOM:TWA 0.15 mg(Pb)/m<sup>3</sup> OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

## Section 16 - Additional Information

**MSDS Creation Date:** 7/06/1998

**Revision #1 Date:** 8/02/2000

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher 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 Fisher has been advised of the possibility of such damages.*