MATERIAL SAFETY DATA SHEET

Lead Nitrate

SECTION 1 . Product and Company Idenfication

Product Name and Synonym: Lead Nitrate

Product Code: L3315

Material Uses:

Manufacturer: Science Stuff
1104 Newport Ave
Austin, TX 78753
(512) 837-6020

Entry Date : 6/10/2013

Print Date: 6/10/2013

24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	3
Flammability:	0
Reactivity:	3

Hazard Rating:

Least	Slight	Moderate	High	Extreme
0	1	2	3	4

NA=Not Applicable NE=Not Established

SECTION 2 HAZARD IDENTIFICATION

Heat, shock, friction, or contact with other materials may cause fire or explosion. Harmful if swallowed. Avoid breathing vapor or dust. Use adequate ventilation. Avoid contact with eyes, skin or clothes. Wash thoroughly after handling. Keep closed.

Physical state: Solid. [Crystals]
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:
DANGER!
OXIDIZER.
HAMFUL IF INHALED OR ABSORBED THROUGH THE SKIN OR SWALLOWED
CAUSES RESPIRATORY TRACT, EYE AND SKIN
IRRITATION.
SUSPECT CANCER HAZARD
MAY CAUSE CANCER
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS:
BLOOD, KIDNEYS, GASTROINTESTINAL TRACT, CENTRAL NERVOUS SYSTEM
BIRTH DEFECT HAZARD
CAN CAUSE BIRTH DEFECTS
DANGER OF CUMULATIVE EFFECTS

Toxic to aquatic organisms, may cause long-term adverse effect in the aquatic environment.

WARNING: this product contains a chemical known to the State of California to cause cancer. birth defects or other reproductive harm.

Keep away from combustible material.
Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Wash thoroughly after handling.

Routes of entry:
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

Eyes: Irritating to eyes.
Skin: Toxic in contact with skin. Irritating to skin.

Inhalation: Toxic by inhalation. Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion: Toxic if swallowed.
Carcinogenicity: May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.
Developmental effects: Can cause developmental abnormalities.
Fertility effects: No known significant effects or critical hazards.
Target organs: May cause damage to the following organs: blood, kidneys, gastrointestinal tract, central nervous system (CNS)
Medical conditions aggravated by over-exposure:
Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
☐	Lead Nitrate	CAS# 10099-74-8	100 %	W/W	OSHA PEL 0.05 mg(Pb)/m^3

SECTION 4 FIRST AID MEASURES

Heat, shock, friction, or contact with other materials may cause fire or explosion. Harmful if swallowed. Avoid breathing vapor or dust. Use adequate ventilation. Avoid contact with eyes, skin or clothes. Wash thoroughly after handling. Keep closed.

FIRST AID: CALL A PHYSICIAN. SKIN: Remove contaminated clothing. Wash exposed area with soap and water.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Water only
Fire / Explosion Hazards:	Negligible fire hazard when exposed to heat or flame
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Sweep up and place in suitable (fiberboard) containers for reclamation or later disposal.

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Were appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for cleaning up: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste

disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7 HANDLING AND STORAGE

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator

Ventilation

Local Exhaust ☑

Mechanical ☐

Protective Gloves: Wear appropriate gloves to prevent skin exposure

Eye Protection: Goggles and Face Shield

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Product name - United States –

Lead Nitrate

ACGIH TLV (United States, 1/2008)
TWA: 0.05 mg/m3, (as Pb) 8 hour(s)
OSHA PEL 1989 (United States, 3/1989)
TWA: 50 ug/m3, (as Pb) 8 hour(s)

Engineering measurers: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended:
safety glasses with side-shields
Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.
Body recommended:
lab coat
Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is

necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Recommended: nitrile rubber

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	878°F	Percent Volatile by Volume:	Information not available
Boiling Point:	Information not available	Evaporation Rate	Information not available
Vapor Pressure:	Information not available	Evaporation Standard	
Vapor Density:	Information not available	Auto Ignition Temp	Information not available
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Information not available
Appearance /Odors:	Colorless or white to yellow transluscent crystals	Upper Flamm. Limit in Air	Information not available
Flash Point:	Information not available		
Specific Gravity:	4.53		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Incompatibilities
Materials to Avoid:	Ammonium thiocyanate, carbon, lead hypophosphate, organics, potassium acetate, reducing agents
Hazardous Decomposition Products:	Fumes of lead and oxides of nitrogen
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

SECTION 11 Toxicological Information

Toxicity data- United States- Product/ ingredient name:

Lead Nitrate

LD50	93 mg/kg	Intravenous	Rat
LD50	3613 mg/kg	Unreported	Rat
LDLo	500 mg/kg	Oral	Guinea pig
LDLo	270 mg/kg	Intraperitoneal	Rat

TDLo	33121 ug/kg	Intravenous	Rat
TDLo	33.1 mg/kg	Intravenous	Rat
TDLo	25 mg/kg	Intravenous	Rat
TDLo	5 mg/kg	Intravenous	Rat

Carcinogenic effects: May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenic effects: No known significant effects or critical hazards.
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

SECTION 12 Ecological Information

Environmental effects : No known significant effects or critical hazards.
Other adverse effects : No known significant effects or critical hazards.

SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14 Transport Information

DOT Classification: Lead Nitrate, 5.1, UN1469, PGII

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States

HCS Classification:
Toxic material
Target organ effects
Irritating material
Carcinogen
Oxidizing material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notifications: No products were found.
SARA 302/304/311/312 hazardous chemicals: Lead Nitrate
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Lead Nitrate
Fire Hazard:, Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Lead Nitrate
Clean Water Act (CWA) 311: Lead Nitrate
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

DEA List I Chemicals : not listed
(Precursor Chemicals)
DEA List II Chemicals : not listed
(essential Chemicals)

SARA 313
Form R – Reporting Requirements: Lead Nitrate
CAS number : 10099-74-8 Concentration : 100

Supplier notification : Lead Nitrate
CAS number : 10099-74-8 Concentration : 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Massachusetts Substance : This material is listed.
New Jersey Hazardous Substances : This material is listed.
New York Acutely Hazardous Substances : This material is listed.
Pennsylvania RTK Hazardous Substances : This material is listed.

California Prop. 65
WARNING: this product contains a chemical known to the State of California to cause cancer.

Ingredient name: Lead Nitrate

Cancer: Yes Reproductive: Yes No significant risk level: No Maximum acceptable dosage level: No

Canada
WHMIS (Canada) :
Class C: Oxidizing material
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic)
Canadian lists :
CEPA Toxic Substance: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.
CEPA DSL/ CEPA NDSL : CEPA DSL:
This material is listed or exempted.
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16 Additional Information

Flammability

Health Reactivity

NFPA

Revisions

0.2

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.