



LTS Research Laboratories, Inc.
Safety Data Sheet
Lithium amide

1. Product and Company Identification

Trade Name:	Lithium amide
Chemical Formula:	LiNH ₂
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	LTS Research Laboratories, Inc.
Street:	37 Ramland Road
City:	Orangeburg
State:	New York
Zip Code:	10962
Country:	USA
Tel #:	855-587-2436 / 855-lts-chem
24-Hour Emergency Contact:	800-424-9300 (US & Canada) +1-703-527-3887 (International)



2. Hazards Identification

Signal Word:

Danger



Hazard Statements:

H261: In contact with water releases flammable gas

H314: Causes severe skin burns and eye damage

Precautionary Statements:

P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire

P231+P232: Handle under inert gas. Protect from moisture

P260: Do not breathe dust/fume/gas/mist/vapors/spray

P264: Wash face, hands and any exposed thoroughly after handling

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

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

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 or doctor/physician

P335+P334: Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages

P363: Wash contaminated clothing before reuse

P370+P378: In case of fire: Use CO₂, dry sand, dry chemical or alcohol-resistant foam for extinction

P402+P404: Store in a dry place. Store in a closed container

P405: Store locked up

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

Health: 3

Flammability: 3

Physical: 1

3. Composition

Chemical Family: Inorganic compound

Additional Names: Lithamide

Lithium amide (LiNH₂):

Percentage: 100 wt%

CAS #: 7782-89-0

EC #: 231-968-4

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	Causes burns by all exposure routes. Breathing difficulties. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Keep patient warm. Seek immediate medical attention.
Ingestion:	Seek immediate medical attention.
Skin:	Immediately wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention

5. Firefighting Measures

Flammability:	Flammable
Extinguishing Media:	Do not use water for fires – use CO ₂ , sand, extinguishing powder. Reacts violently with water. Contact with water liberates toxic gas. Dust can form an explosive mixture in air
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Keep unprotected persons away. Isolate spill area and provide ventilation. Vacuum up spill using an electrically protected high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust. Do not allow contact with water because of violent reaction.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions:	Handle under dry inert gas. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store under dry inert gas. Store away from water/moisture, air, heat and sources of ignition, acids, strong oxidizing agents, alcohols. Reacts violently with water. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Use explosion-proof electrical/ventilating/lighting/equipment.
Respiratory Protection:	Dust Respirator
Protective Gloves:	Nitrile rubber gloves with minimum thickness of 0.11 mm
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Light grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Ammonia-like
Water Solubility:	N/A
Boiling Point:	430°C
Melting Point:	373°C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	1.17 g/cc
Molecular weight:	22.95 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions. Reacts violently with water. Contact with water liberates toxic gas.
Reacts With:	Strong oxidizing agents, water/moisture, acids, alcohols
Incompatible Conditions:	Air, heat and sources of ignition, water/moisture
Hazardous Decomposition Products:	Metal oxide fume, nitrogen oxides, carbon oxides, ammonia

11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes serious eye damage
Skin:	Causes severe skin burns
Ingestion:	Possible perforation of stomach or esophagus should be investigated
Inhalation:	May cause respiratory irritation
Chronic:	N/A
Signs & Symptoms:	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Material is extremely destructive to tissue of mucous membranes and upper respiratory tract, eyes, and skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting cough, shortness of breath,
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. Ecological Information

Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	Persistence is unlikely
Very Persistent, Very Bioaccumulative:	N/A
Notes:	N/A

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class:	4.3 Substances/mixtures which, in contact with water, emit flammable gases
Packing Group:	II
UN Number:	UN1390
Proper Shipping Name:	Alkali metal amides

15. Regulatory Information

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	No
Sec 313 Toxic Chemicals:	No

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.

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