



LTS Research Laboratories, Inc.
Safety Data Sheet
Sodium Phosphorus Sulfide

1. Product and Company Identification

Trade Name: Sodium Phosphorus Sulfide
Chemical Formula: Na_3PS_4
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 2001 Oaks Pkwy
City: Belmont
State: North Carolina
Zip Code: 28012
Country: USA
Tel #: +1 (704) 899 2840

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word:

Danger



Hazard Statements:

H228: Flammable solid
H260: In contact with water releases flammable gases which may ignite spontaneously.
H290: May be corrosive to metals
H301 + H311: Toxic if swallowed or in contact with skin
H314: Causes severe skin burns and eye damage
H332: Harmful if inhaled
H400: Very toxic to aquatic life

Precautionary Statements:

P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
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.
P234: Keep only in original container.
P240: Ground/ bond container and receiving equipment.
P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P260: Do not breathe dust or mist.
P264: Wash face, hands, and any exposed skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284: Wear respiratory protection.
P301 + P310 + P330: IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
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 dry sand, dry chemical, or alcohol-resistant foam to extinguish.
P390: Absorb spillage to prevent material damage.
P391: Collect spillage
P402 + P404: Store in a dry place. Store in a closed container.
P403 + P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.
P406: Store in a corrosive resistant container with a resistant inner liner.
P501: Dispose of contents/ container in accordance with local/ regional/ national/ international regulations.

HMIS Health Ratings (0-4):

Health:	3
Flammability:	3
Physical:	2

3. Composition

Chemical Family:	Inorganic compound
Additional Names:	None
Sodium Phosphorus Sulfide (Na_3PS_4):	
Percentage:	0-100 wt%
CAS #:	NIL
EC #:	NIL

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	Treat symptomatically.
Important Symptoms:	Causes severe skin burns Causes serious eye damage
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek medical attention.
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person. Seek medical attention.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing. Seek medical attention.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

5. Firefighting Measures	
Flammability:	Flammable Reacts violently with water
Extinguishing Media: Spec. Fire Fighting Procedure:	Do not use water for metal fires – use CO ₂ , sand, extinguishing powder. 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. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.
7. Handling and Storage	
Handling Conditions:	Handle under inert gas. Wear personal protective equipment/ face protection. Ensure adequate ventilation. Do not get into eyes, on skin or on clothing. Avoid ingestion and inhalation. Avoid formations of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. Keep away from sources of ignition – No smoking. Take measures to prevent the buildup of electrostatic charge.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store under dry inert gas. 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:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Nitrile rubber gloves, 0.11 mm thick
Eye Protection:	Safety glasses or goggles
Body Protection:	Flame retardant antistatic protective clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	N/A
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Rotten eggs
Water Solubility:	N/A
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	N/A
Molecular weight:	228.2 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Water, Acids, Oxidizing agents
Incompatible Conditions:	Acids, Water/ Moisture, Heat, Sparks, Flames, Moisture
Hazardous Decomposition Products:	Sulfur oxides, phosphorus oxides, sodium oxides, hydrogen sulfide, metal oxide fumes

11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes serious eye damage
Skin:	Toxic in contact with skin
Ingestion:	Toxic if swallowed
Inhalation:	Harmful if inhaled
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	High
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	Toxic to aquatic life. May cause long lasting harmful effect on aquatic life. Do not allow material to be released to the environment without proper governmental permits. Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment. Do not allow product to reach any water sources. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies.

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous for transportation as powder only.



Hazard Class: 4.3 Substances which, in contact with water, releases flammable gases
Secondary Class: 8 Corrosives
Packing Group: II
UN Number: UN3131
Proper Shipping Name: Water-reactive solid, corrosive, n.o.s. (Sodium Phosphorus Sulfide)

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
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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