

Henan Sinotech

Material Safety Data Sheet

FLAME RETARDANT PRF-SN SERIES

Section 1 - Chemical Product and Company Identification

MSDS Name: FLAME RETARDANT PFR-SN SERIES

Product use: Flame Retardant

CAS#:225789-38-8

Chemical Name: Diethylphosphinic acid Aluminum

Synonyms: Aluminum Diethylphosphinate(ADP); Diethylphosphinic acid, aluminum salt

Chemical Formula: C₁₂H₃₀O₆P₃Al

Molecular Wt.: 390.2658

Company Identification: HENAN SINOTECH IMPORT&EXPORT CORPORATION LIMITED

For information in CHINA, call: 0086-0371-86181678

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Chemical Family	EINECS/ELINCS
225789-38-8	Diethylphosphinic acid Aluminum	Phosphinates	unlisted

Toxicological Data on Ingredients: ORAL (LD50): > 2000 mg/kg [Rat].

Hazard Symbols: None listed.

Risk Phrases: None listed.

Section 3 - Hazards Identification

Potential Acute Health Effects:

Slightly hazardous in case of eye contact (irritant), of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Section 4 - First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention.

Skin Contact: Wash with soap and water.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Section 5 - Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not applicable

Special Remarks on Explosion Hazards:

When a large amount of dust floats in the air, static case or spark can cause dust explosion.

Section 6 - Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7 - Handling and Storage

Precautions: Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated, drying area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 10 (mg/m³) from ACGIH (TLV) [United States] Inhalation Total.

TWA: 10 STEL: 20 (mg/m³) [Canada] Inhalation Total.

TWA: 5 (mg/m³) from OSHA (PEL) [United States] Inhalation Respirable.

TWA: 15 from OSHA (PEL) [United States] Inhalation Total.

Consult local authorities for acceptable exposure limits.

Section 9 - Physical and Chemical Properties

Physical state and appearance: White Powder

Odor: Odorless.

Taste: Chalky

Molecular Weight: 390.2658 g/mole

Color: White.

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: Not available

Critical Temperature: Not available.

Specific Gravity: 1.35 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Insoluble in water and organic solvents.

Section 10 - Stability and Reactivity

Stability: The product is stable.

Instability Temperature: > 300°C.

Conditions of Instability: Incompatible Materials.

Incompatibility with various substances: Reactive with strong acids and base.

Corrosivity: Non-corrosive.

Special Remarks on Reactivity:

Non-hygroscopic. Incompatible with strong acids and base.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11 - Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral LD₅₀: 2100 mg/kg

Chronic Effects on Humans: May cause disease in following organs: kidneys.

Other Toxic Effects on Humans: Not available in case of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: Not available.

Eyes: Dust causes eye irritation.

Inhalation: Excessive inhalation causes respiratory tract and mucous membrane irritation. Low hazard for usual industrial handling.

Ingestion: Ingestion of large amounts may cause gastrointestinal tract disturbances with nausea and possibly constipation. Expected to be a low hazard for usual industrial handling.

Chronic Potential Health Effects: Chronic ingestion may affect kidneys.

Section 12 - Ecological Information

Daphnia toxicity EC0 = 100 mg/L; EC50 > 100 mg/L
algae toxicity no inhibition at 180 mg/L
fish toxicity LC0 = 100 mg/L ; LC50 > 100 mg/L
bacteria toxicity EC20 = 480 mg/L ; EC50 = 1970 mg/L
biodegradability not readily biodegradable
hydrolysis stable (tier I of OECD 111)
photolysis stable (no uv-vis absorption)

Section 13 - Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14 - Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15 - Regulatory Information

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R36- Irritating to eyes. S2- Keep out of the reach of children.

S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS(U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard: Not available

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved certified respirator or equivalent. Splash goggles.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

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