

Safety Data sheet

Revision date: 2025.06.20

Aluminium Orthophosphate

1. IDENTIFICATION OF THE MATERIAL AND THE SUPPLIER

Product name: Aluminium Orthophosphate  
Product synonyms: Mono aluminium phosphate  
Product Description: Refractory bonding agent, Steel coating,  
Supplier Name: MT Refractories (Pty) Ltd  
Address: Unit C 61 Steyr Street, Aureus, Randfontein, 1759  
Telephone: +27 (0)67 325 5930  
Emergency: +27 (0)72 875 0191

2. HAZARDS IDENTIFICATION

Physical hazards: Not classified

Health hazards: Skin corrosion / irritation Category 1A  
Serious eye damage / eye irritation Category 1

Environmental hazards: Not classified

Label elements:



Signal word: Danger

Hazard statement: Causes severe skin burns and eye damage.  
Causes serious eye damage.  
Causes skin irritation

Precautionary statement

Prevention: Wash thoroughly after handling it. Wear protective gloves, clothing, eye / face protection.

Response: Product ingested: Do NOT induce vomiting, rinse mouth.  
Product on skin: Take off contaminated clothing. Rinse skin  
Product inhaled: Move person to fresh air and ensure comfortable breathing.  
Product in eyes: Rinse eyes with water for several minutes. If needed and possible remove contact lenses. Continue rinsing.

Immediately call a doctor or medical personnel.  
Wash contaminated clothing.

Storage: Store locked up. Product should be stored in a closed bucket and away from excessive heat.

Disposal: Dispose product/container according to local regulations.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Proportion (%)
Aluminium orthophosphate	13530-50-2	45-55

### 4. FIRST AID MEASURES

Eye Contact:	If in contact with eyes, thoroughly flush eyes with running clean water for at least 20 minutes. If person is wearing contact lenses, removal should be undertaken by skilled persons. Seek medical attention.
Skin contact:	Remove contaminated clothing. Wash areas that were in contact with the product thoroughly. Seek medical attention if irritation develops and persists. Launder clothes before re-using.
Inhalation:	If breathing becomes difficult, move to fresh air. If necessary, give oxygen and if breathing stops use artificial respiration. Seek medical attention.
Ingestion:	RINSE mouth and do NOT induce vomiting. Do not give any liquids to an unconscious person. Seek medical attention.
Most important symptoms/effects:	Burning pain and severe corrosive skin damage. Causes severe eye damage. Symptoms may include blurred vision, stinging, redness, swelling and tearing. Permanent eye damage including blindness could result.
Indication of immediate medical attention / treatment needed:	Treat symptomatically. Chemical burns: Immediately flush with water. Remove clothing that does not affect the contaminated area while continuously flushing. Call an ambulance. Continue to flush during transportation. Keep person under observation. Some symptoms might be delayed.

Ensure medical personnel are aware of material(s) involved.

Pre-existing skin and eye problems may be aggravated by continued contact with product. Contact with eyes, skin and respiratory system may cause irritation. Redness of eyes and skin can be a consequence of contact with product.

### 5. FIRE FIGHTING MEASURES

Flammability:	Non flammable. If exposed to excess heat, closed containers may rupture due to internal pressure build up.
Fire and explosion:	None expected.
Suitable Extinguishing media:	Water, foam, alcohol foams, carbon dioxide and dry chemical. Contact with water may cause a reaction and heat to be released.

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### 6. ACCIDENTAL RELEASE MEASURES

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Ensure adequate ventilation and evacuate to safe areas.

**Personal Precautions:** Wear personal protective equipment (clothing, respiration protection, eye or face shield and suitable gloves) to avoid direct contact with product or dust.

**Clean up measures:** Absorb the spillage with using a non-combustible material like sand, vermiculite or dry earth and transfer into containers for disposal. Dilute the acid with water and neutralize the spill with soda ash or lime. The neutralization can cause the release of heat. Clean up residual material and surface by using water.

**Environmental Precautions:** Avoid discharge into drains, watercourses and onto ground.

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### 7. HANDLING AND STORAGE

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**Safe Handling:** Handle in a well-ventilated work area. Wear personal protective equipment (clothing, glasses / face shield and chemically resistant gloves) to avoid direct contact.

**Safe storage:** Keep away from incompatible materials. Product should be kept in a dry, well-ventilated location in properly closed and sealed containers.

**Stacking:** Not recommended.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Occupational exposure limits:** Not determined.

**Biological limit values** Not determined.

**Engineering Control Measures:** Use adequate ventilation to reduce exposure levels.

**Respiratory Protection:** Make use of the appropriate respiratory equipment.

**Eye Protection:** Wear goggles or safety glasses with side shields where there is a risk of contact with dust or the wet mixture.

**Hand Protection:** Wear chemical resistant gloves to avoid contact with skin.

**Protective Clothing:** Protective clothing designed to limit direct exposure to product.

**Hygiene Measures:** Wash clothing after contamination, dispose of gloves, wash hands before eating and drinking.

**Thermal Protection:** When necessary, wear appropriate thermal protective clothing.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance:** Clear to tan liquid

**Odor:** Odorless

**pH:** 1.5 - 3

**Molecular formula:**  $Al(H_2PO_4)_3$

**Vapor Pressure:** Not available

**Vapor Density:** Not available

**Boiling Point:** Not available

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Melting Point:	Not available
Specific gravity / density	1.48 – 1.5
Evaporation rate:	Not available
% Volatiles:	~50 %
Flammability:	Non Flammable
Flash Point:	Not available
Flammable Limits – Lower and Upper:	Not available

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### 10. STABILITY AND REACTIVITY

Reactivity:	Product is stable under normal conditions for shipping, storage and application.
Chemical Stability:	Hardens when dried
Conditions to avoid:	Extreme or excessive heat
Incompatible Material:	Strong bases
Hazardous Decomposition:	Oxides of phosphorous
Hazardous Polymerization:	None
Hazardous Reaction:	Under normal storage conditions, hazardous reactions will not occur.

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### 11. TOXICOLOGICAL INFORMATION

Health Hazard Summary:	Avoid contact with eyes, skin and respiratory system.
Eye:	Contact with eyes may cause damage.
Skin:	Repeated or prolonged contact may cause irritation or burns.
Inhalation:	May irritate the respiratory tract.
Ingestion:	Ingestion of large quantities may cause abdominal cramps, nausea, vomiting and diarrhea.
Carcinogenicity:	Not available
Chronic Effects:	Not available
Symptoms related to physical, chemical and toxicological characteristics:	Chemical burns: Immediately flush with water. Remove clothing that does not affect the contaminated area while continuously flushing. Call an ambulance. Continue to flush during transportation. Keep person under observation.

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### 12. ECOLOGICAL INFORMATION

Keep away from water and sewage system and do not allow product to reach ground water.  
No information regarding the eco-toxicity or environmental fate of the product.

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### 13. DISPOSAL CONSIDERATIONS

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Keep away from water and sewage system and do not allow product to reach ground water.  
Dispose material according to local regulations.  
Empty containers might contain product residues and should be disposed of accordingly.  
The proper disposal of product must be determined with waste analysis.

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### 14. TRANSPORT INFORMATION

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Domestic (Land, D.O.T)

Proper Shipping Name:	Aluminium Orthophosphate
Hazard Class:	8
UN Nr:	UN3264
Packing group:	III
Information reported for product size:	35 kg

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### 15. REGULATORY INFORMATION

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Not applicable

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### 16. OTHER INFORMATION

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The information provided in this document has been compiled from sources considered accurate and dependable to the best of our knowledge, but it is not guaranteed to be so. This information is for the use and evaluation of this product in respect to hazards (safety, health and environmental). It remains the responsibility of the user to determine the product suitability for a specific purpose and to adopt the necessary safety precautions. We make no warranty as to the results to be obtained in using any material. This information is no product warranty or base for legal relationship.  
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