Section 1: Chemical Product and Company Information

Product name: Diammonium Phosphate
Reference Number: 
Supplier/ Further Information: Martrex, Inc.
1107 Hazeltine Blvd,
Suite 535 MD 27,
Chaska, Minnesota 55318
Phone: 952/933-5000
Toll Free: 800/328-3627
FAX: 952/933-1889
EPA Registration Number: n/a
CAS#: 7783-28-0
Chemical Name: Diammonium Phosphate
Synonyms: Phosphoric acid, diammonium salt; ammonium phosphate; DAP; diammonium phosphate, diammonium salt
Chemical Family: Ammonium Phosphates
Product Use: n/a
SDS Number: n/a

Section 2: Hazards Identification

Emergency Overview

Warning! Causes serious eye irritation, skin irritation, respiratory tract irritation. Harmful if swallowed or inhaled. Harmful to aquatic life.

GHS Classification (Global Harmonized Classification see Section 16):

- Skin corrosion/irritation. Category 2 (H315)
- Serious eye damage/eye irritation. Category 2A (H319)
- Specific target organ toxicity, single exposure; Respiratory tract irritation Category 3 (H335)
- Hazardous to the aquatic environment, acute hazard Category 3 (H402)

GHS Label, Hazards and Precautionary Statements

GHS Pictogram:

![GHS Pictogram](image)

(GHS Pictogram Hazards Definitions See Section 16)

Label Signal Word: Warning
Hazard Statements:

- Causes Skin Irritation. (H315)
- Causes Serious Eye Irritation. (H319)
- May cause respiratory irritation. (H335)
- Harmful to Aquatic Life. (H402)
Precautionary Statements:  
**Prevention:**  
Avoid breathing dust, fume, gas, mist, vapors, spray. (P261)  
Use only outdoors or in well-ventilated area. (P271)  
Wash thoroughly after handling. (P264)  
Wear protective gloves. (P280)  
Avoid release to the environment. (P273)  
**Response:**  
IF ON SKIN: Wash with plenty of water. (P302+P352)  
Specific Treatment see Section 4: First Aid Measures, Skin Exposure. (P321)  
If Skin irritation or rash occurs: Get Medical Advice / Attention. (P332+P333+P313)  
Take off contaminated clothing and wash it before reuse. (P362+P364)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
If eye irritation persists: Get medical advice/ attention. (P337+P313)  
IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340)  
Call a POISON CENTER/doctor: if you feel unwell. (P312)  
**Storage:**  
Store in well-ventilated place. P403)  
Keep container tightly closed. (P233)  
Store locked up. (P405)  
**Disposal Considerations:**  
Dispose of content/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)  
**Potential Health Effects:**  
Primary Routes of Exposure / Entry: no data  
Target Organs: no data  
**Inhalation** (breathing): Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.  
**Eye Contact:** Causes irritation, redness, and pain.  
**Skin Contact:** Causes irritation to skin. Symptoms include redness, itching, and pain.  
**Ingestion** (swallowing): Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.  
**NFPA Ratings:**  
Health: 2  
Flammability: 0  
Reactivity: 1  
**Carcinogenicity Data:**  
See Section 11 for more Toxicological information  

### Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous Component</th>
<th>CAS#</th>
<th>%</th>
<th>OSHA Limits</th>
<th>ACGIH Limits</th>
<th>OTHER Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diammonium Phosphate</td>
<td>7783-28-0</td>
<td>86%</td>
<td>TWA 5 mg/cu m</td>
<td>no data</td>
<td>no data</td>
</tr>
</tbody>
</table>

### Section 4: First Aid Measures

**Eye Exposure:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. **Get immediate medical attention.**  
**Skin Exposure:** Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. **Get Medical Attention.** Wash clothing before reuse. Thoroughly clean shoes before reuse.  
**Ingestion:** Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. **Get Medical Attention.**  
**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **Get Medical Attention.**
Medical Conditions Possibly Aggravated by Exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

NOTE TO THE PHYSICIAN: Treat symptomatically and supportively.

Section 5: Fire Fighting Measures

Flammability Classification: Not considered to be a fire hazard.

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard. See Section 10 Reactivity Incompatibilities.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Fire Fighting Information: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Hazardous Combustion Products: See Section 10 Reactivity Incompatibilities.

Section 6: Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill: Ventilate area of leak or spill.

Spill and Leak Personal Procedures: Wear appropriate personal protective equipment as specified in Section 8.

Cleanup and Disposal of Spill: Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Consult local waste regulators for proper disposal.

Environmental and Regulatory Reporting: See Sections 12, 13 and 15.

Section 7: Handling and Storage

Minimum/maximum Storage Temperature: no data.

Handling: Use methods to minimize dust.

Storage: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

REGULATORY REQUIREMENTS: Obey all Federal, State and Local regulations when storing or disposing of Diammonium Phosphate. See Section 15.

Section 8: Exposure Controls / Personal Protection

Exposure Limits: OSHA TWA 5 mg/cu m

Ventilation/Engineering Protection: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Protective Clothing and Equipment: Wear impervious protective clothing.

Respiratory Protection: (NIOSH Approved): For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Hygienic Work Practices: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Section 9: Physical and Chemical Properties

Chemical Name: Diammonium Phosphate
Percent Equivalent: 86%
Physical State: Solid
Color and Appearance: White Crystals or powder
Odor: slight ammonia-like odor
Odor Threshold: no data
pH: ca. 8.0
Specific Gravity: 1.62
Vapor Pressure: no data
Vapor Density (Air = 1): no data
Density: no data
Bulk Density: no data
Volatilities by Volume @ 21°C (70°F): 0
Boiling Point: not applicable
Melting Point: 155°C (311°F) Decomposes
Evaporation Rate (Butyl Acetate=1): no data
Solubility in water: 1g/1.7ml water
Viscosity: no data
Other Solubilities: no data
Chemical Formula: (NH₄)₂HPO₄
Formula Wt: 132.06

Section 10: Stability and Reactivity

Chemical Stability (stable under normal temperature and pressures): Stable √ Unstable ___
Hazardous Polymerization: May Occur ___ Will Not Occur X
Conditions to Avoid: dusting conditions, extreme heat, extreme humidity. Will gradually lose about 8% ammonia on exposure to air.
Chemical Incompatibility and Materials to Avoid: Strong Bases, Sodium hypochlorite.
Hazardous Decomposition Products: Burning may produce ammonia and oxides of phosphorus

Section 11: Toxicological Information

Acute Toxicity:
   Eye Irritation: No data
   Skin Irritation:
      Toxicological Information and Interpretation:
      Skin - skin irritation, rabbit. Mildly irritating.
   Dermal Toxicity: No data
   Respiratory Irritation: No data
   Inhalation Toxicity: No data
   Oral Toxicity:
      Toxicological Information and Interpretation:
      LD50 - lethal dose 50% of test species, > 1000 mg/kg, rat.
Other Effects on Humans: no data
Carcinogen Status:
   OSHA: No  NTP: No
   ACGIH: No  IARC: No
**Section 12: Ecological Information**

Ecotoxicity Data:
- **Fish Toxicity**: LC50 - lethal concentration 50% of test species, 155 mg/l/96 hr, fish: Pimephales promelas.
- **Chemical Fate Information**: No data found for product.

**Section 13: Disposal Considerations**

Disposal Procedures: Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**Section 14: Transport Information**

US DOT Shipping Name: 
No classification assigned.

**Section 15: Regulatory Information**

Inventory Status:
- UNITED STATES (TSCA) Y
- CANADA (DSL) Y
- EUROPE (EINECS/ELINCS) Y
- AUSTRALIA (AICS) Y
- JAPAN (MITI) Y
- SOUTH KOREA (KECL) Y

**FEDERAL REGULATIONS**

Inventory Issues: All functional components of this product are listed on the TSCA Inventory.

**SARA Title III Hazard Classes:**
- Fire Hazard - NO
- Reactive Hazard - NO
- Release of Pressure - NO
- Acute Health Hazard - YES
- Chronic Health Hazard - NO

**STATE REGULATIONS:**
This product does not contain any components that are regulated under California Proposition 65.

**Section 16: Other Information**

National Paint & Coating Hazardous Materials Identification System--HMIS(R):
- 1 - Health Hazard Rating--Slight
- 0 - Flammability Rating--Minimal
- 0 - Reactivity Rating--Minimal

**Acronyms**
- ACGIH - American Conference of Governmental Industrial Hygienists
- ANSI - American National Standards Institute
- CAS - Chemical Abstracts Service
As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

### GHS Pictograms and Hazards

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flame</th>
<th>Exclamation Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Carcinogen</td>
<td>• Flammable</td>
<td>• Irritant (skin and eye)</td>
</tr>
<tr>
<td>• Mutagenicity</td>
<td>• Pyrophoric</td>
<td>• Skin Sensitizer</td>
</tr>
<tr>
<td>• Reproductive Toxicity</td>
<td>• Self-Heating</td>
<td>• Acute Toxicity (harmful)</td>
</tr>
<tr>
<td>• Respiratory Sensitizer</td>
<td>• Emissions Flammable Gas</td>
<td>• Narcotic Effects</td>
</tr>
<tr>
<td>• Target Organ Toxicity</td>
<td>• Self-Reactive</td>
<td>• Respiratory Tract Irritant</td>
</tr>
<tr>
<td>• Aspiration Toxicity</td>
<td>• Organic Peroxides</td>
<td>• Hazardous to Ozone</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gas Cylinder</th>
<th>Corrosion</th>
<th>Exploding Bomb</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gases Under Pressure</td>
<td>• Skin Corrosion/ Burn</td>
<td>• Explosives</td>
</tr>
<tr>
<td></td>
<td>• Eye Damage</td>
<td>• Self-Reactive</td>
</tr>
<tr>
<td></td>
<td>• Corrosive to Metals</td>
<td>• Organic Peroxides</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flame Over Circle</th>
<th>Environment</th>
<th>Skull and Crossbones</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Oxidizers</td>
<td>• Aquatic Toxicity</td>
<td>• Acute Toxicity (fatal or toxic)</td>
</tr>
</tbody>
</table>

### NFPA Rating Explanation Guide

<table>
<thead>
<tr>
<th>Rating Number</th>
<th>Health Hazard</th>
<th>Flammability Hazard</th>
<th>Instability Hazard</th>
<th>Rating Special Symbol</th>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Can be lethal</td>
<td>Will vaporize and readily burn at normal temperatures</td>
<td>May explode at normal temperatures and pressures</td>
<td>ALK</td>
<td>Alkaline</td>
</tr>
<tr>
<td>3</td>
<td>Can cause serious or permanent injury</td>
<td>Can be ignited under almost all ambient temperatures</td>
<td>May explode at high temperature or shock</td>
<td>ACID</td>
<td>Acidic</td>
</tr>
<tr>
<td>2</td>
<td>Can cause temporary incapacitation or residual injury</td>
<td>Must be heated to higher temperature to burn</td>
<td>Violent chemical change at high temperatures or pressures</td>
<td>BIO</td>
<td>BioHazard</td>
</tr>
<tr>
<td>1</td>
<td>Can cause significant irritation</td>
<td>Must be protected before ignition can occur</td>
<td>Normally stable, high temperatures make unstable</td>
<td>COR</td>
<td>Strong Corrosive</td>
</tr>
<tr>
<td>0</td>
<td>No Hazard</td>
<td>Will not burn</td>
<td>Stable</td>
<td>CRYO</td>
<td>Cryogenic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OXY</td>
<td>Oxidizer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\text{\$}$</td>
<td>Radioactive</td>
</tr>
</tbody>
</table>

*This chart for reference only - For complete specifications consult the NFPA Standard*

24 Hour Emergency Phone - Chemtrec:  1-800-424-9300  Transportation  
1-800-441-3637  Medical
TWA - 8-hour Time Weighted Average
TSCA - US Toxic Substance Control Act
WHMIS - Workplace Hazardous Material Information System

**SDS Issue Date:** 12-17-2014  
**Revised Date:** 12-17-2014  
**Supersedes:** 4-12-2014

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