Material Safety Data Sheet

Martrex, Inc.

Section 1: Chemical Product and Company Information

Product name: Ammonium Pyrophosphate
Reference Number: n/a
Web: www.martrexinc.com
Supplier/ Further Information: Martrex, Inc.
  P. O. Box 1709
  14525 Highway 7
  Minnetonka, Minnesota 55345-3793
  Phone: 952/933-5000
  Toll Free: 800/328-3627
  FAX: 952/933-1889
EPA Registration Number: n/a
CAS#: 68333-79-9
Chemical Name: Ammonium Pyrophosphate
Synonyms: Ammonium Polyphosphate; Polyphosphoric Acids;
Ammonium Salts; Urea-Ammonium Polyphosphate; APP;
Phos-Chek(R) P-30 Fire Retardant; BTI01375
Chemical Family: Inorganic salt, phosphate
Product Use: flame retardant
MSDS Number: n/a
24 Hour Emergency Phone - Chemtrec Transport: 1-800-424-9300; Medical: 1-800-441-3637

Section 2: 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>Ammonium Pyrophosphate</td>
<td>68333-79-9</td>
<td>100%</td>
<td>no data</td>
<td>no data</td>
<td>EC/EINECS Number 269-789-9</td>
</tr>
</tbody>
</table>

Section 3: Hazards Identification

Emergency Overview: No significant target effects reported.
NFPA Ratings: Health: 1  Flammability: 0  Reactivity: 0
Potential Health Effects:
  Primary Routes of Exposure / Entry: no data
  Target Organs: no significant target effects reported
  Inhalation (breathing):
    Short Term Exposure: no information is available
    Long Term Exposure: no information is available
  Eye Contact:
    Short Term Exposure: irritation
    Long Term Exposure: same as effects reported in short term exposure
  Skin Contact:
    Short Term Exposure: no information on significant adverse effects
    Long Term Exposure: no information on significant adverse effects
  Ingestion (swallowing):
    Short Term Exposure: no information is available
    Long Term Exposure: no information is available
Carcinogenicity Data:
  See Section 11 for more Toxicological information

24 Hour Emergency Phone - Chemtrec: 1-800-424-9300  Transportation 1-800-441-3637  Medical
Section 4: First Aid Measures

Eye Exposure: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention. Skin Exposure: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Ingestion: If a large amount is swallowed, Get Medical Attention.

Inhalation: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

NOTE TO THE PHYSICIAN: Treat symptomatically and supportively.

Section 5: Fire Fighting Measures

Flammability Classification: no data

Fire: Negligible fire hazard.

Explosion: See Section 10 Reactivity Incompatibilities.

Fire Extinguishing Media: Use extinguishing agents appropriate for surrounding fire.

Special Fire Fighting Information: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Hazardous Combustion Products: Thermal decomposition products or combustion: ammonia, inorganic acids

Section 6: Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill:

Occupational Release: Collect spilled material in appropriate container for disposal.

Spill and Leak Personal Procedures: See Section 8.

Cleanup and Disposal of Spill: Consult local waste regulators for proper disposal. Do not discharge.

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: Store and handle in accordance with all current regulations and standards. Store with bases. Keep separated from incompatible substances.

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

Section 8: Exposure Controls / Personal Protection

Ammonium Pyrophosphate: No occupational exposure limits established.

Ventilation/Engineering Protection: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Eye Protection: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection: Wear appropriate chemical resistant gloves.

Protective Clothing and Equipment: Wear appropriate chemical resistant clothing.

Respiratory Protection: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum.

Consider warning properties before use.

Any dust, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter.

Any powered, air-purifying respirator with a dust, mist, and fume filter.

Any powered, air-purifying respirator with a high-efficiency particulate filter.
For Unknown Concentrations or Immediately Dangerous to Life or Health:
Use supplied-air respirator with full face piece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
Use self-contained breathing apparatus with a full face piece.

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: Ammonium Pyrophosphate
Percent Equivalent: 100%
Physical State: Solid, Free-flowing
Color and Appearance: White, Crystals or Powder
Odor: no data
Odor Threshold: no data
pH (9% slurry): >=5.0
Specific Gravity (water=1): no data
Vapor Pressure: Not applicable
Vapor Density (Air = 1): Not applicable
Density: 1.75-1.80 g/mL
Bulk Density: no data
Vapor: Not applicable
Boiling Point: Not applicable
Melting Point: Not applicable
Evaporation Rate (Butyl Acetate=1): Not applicable
Solubility in water: <=0.3 g/mL
Viscosity: no data
Other Solubilities: no data
Chemical Formula: no data
Formula Wt: no data

Section 10: Stability and Reactivity

Chemical Stability (stable under normal temperature and pressures): Stable ____ Unstable ___
Hazardous Polymerization: May Occur____ Will Not Occur____
Conditions to Avoid: None reported.
Chemical Incompatibility and Materials to Avoid: oxidizing materials
Hazardous Decomposition Products: Thermal decomposition products or combustion: ammonia, inorganic acids

Section 11: Toxicological Information

Toxicity Data:
5625 mg/kg oral-rat LD50 (Monsanto Company MSDS)
Acute toxicity
Slightly Toxic: ingestion
Other Effects on Humans: no data
Carcinogen Status:
OSHA: No
NTP: No
IARC: No

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Section 12: Ecological Information

Ecotoxicity Data:
Fish Toxicity: 123000 ug/L 96 day(s) LC50 (Mortality) Rainbow trout, donaldson trout (Oncorhynchus mykiss)

Section 13: Disposal Considerations

Disposal Procedures:
Dispose in accordance with all applicable regulations.

Section 14: Transport Information

US DOT Shipping Name:
U.S. Department of Transportation: No classification assigned.

Section 15: Regulatory Information

U.S. Regulations:
SARA Title III Section 304 Extremely Hazardous Substances (40 CFR 355.40): Not regulated.
SARA Title III SARA Sections 311/312 Hazardous Categories (40 CFR 370.21):
  Acute: No
  Chronic: No
  Fire: No
  Reactive: No
  Sudden Release: No
SARA Title III Section 313 (40 CFR 372.65): Not regulated.

State Regulations:
California Proposition 65: Not regulated.

Canadian Regulations:
WHMIS Classification: Not determined.

European Regulations:
EC Classification (Calculated): Not determined.

National Inventory Status:
U.S. Inventory (TSCA): Listed on inventory.
TSCA 12(b) Export Notification: Not listed.
Canada Inventory (DSL): Listed on inventory.
Canada Inventory (NDSL): Not determined.

Section 16: Other Information

ACGIH - American Conference of Governmental Industrial Hygienists
ANSI - American National Standards Institute
CAS - Chemical Abstracts Service
CERCLA - Comprehensive Environmental Response, Compensation & Liability Act of 1980
CFR - Code of Federal Regulations
CHEMTREC - Chemical Transportation Emergency Center
CPR - Controlled Products Regulations
CWC - Chemical Weapons Convention
DOT - U.S. Department of Transportation
DSL - Canadian Domestic Substance List
EHS - Extremely Hazardous Substance
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Material Identification System
IARC - International Agency for Research on Cancer
LEL/UEL - Lower and Upper Explosive Limit
mg/m³ - Milligrams per cubic meter
MSDS - Material Safety Data Sheet
NAERG - North American Emergency Response Guidebook
NIOSH - National Institute of Occupational Safety and Health
NFPA - National Fire Protection Association
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit (set by OSHA)
PPE - Personal Protective Equipment
RCRA - Resource Conservation and Recovery Act of 1976
SARA - Superfund Amendments and Reauthorization Act
TDG (Canadian): Transport of Dangerous Goods Regulations
TLV - Threshold Limit Value (set by ACGIH)
TWA - 8-hour Time Weighted Average
TSCA - US Toxic Substance Control Act
WHMIS - Workplace Hazardous Material Information System

MSDS Issue Date: n/a
Revised Date: 9-2-2011
Supersedes: n/a

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