

# Diammonium Phosphate, Technical Grade

## SAFETY DATA SHEET

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SDS#: **1177** Review/Revision Date: **01/15/17** 

| SECTION 1 - General Information  | And Chemical Product Identi                       | fication   |                          |  |
|--|---|--|--------------------------|--|
| Trade Name: Diam   | Trade Name: Diammonium Phosphate, Technical Grade |  |                          |  |
| Chemical Name: Ammo  | Chemical Name: Ammonium Phosphate, Dibasic        |  | Product Code:<br>DAPGSAC |  |
|  |   | s, preparation of fertilizer blends, preparation of liquid   | DAIGSAC                  |  |
| fertiliz<br>Restrictions   | er, fire retardant.                               |  |                          |  |
| Distributor Information LidoChem, Inc. 20 Village Court, Hazlet, NJ 07730, Phone: (732) 888 8000<br>Fax: (732) 264 2751 * email: info@lidochem.com                   |   |  |                          |  |
| Emergency phone #: CHEM  | TREC - Day or Night - at 8                        | 00 424 9300  |                          |  |
| SECTION 2 - Hazard(s) Identification   | on  |  |                          |  |
| Classification of the substance or mix   | kture (GHS-US)                                    | GHS Precautionary Statements - Prevention, Response  | e, Storage, Disposal     |  |
| Skin irritation (Category 2)<br>Eye irritation (Category 2A)<br>Specific target organ toxicity - single exposure (Category 3)<br>Acute aquatic toxicity (Category 3) |   | P261: Avoid breathing dust/fume/gas/mist/vapours/spray<br>P271: Use only outdoors or in a well-ventilated area             |                          |  |
|  |   | P264: Wash thoroughly after handling<br>P281: Use personal protective equipment as required                                |                          |  |
| Physical Hazards<br>None   |   | P273: Avoid release to the environment   |                          |  |
| Hazard Statement<br>H315: Causes skin irritation   |   |  |                          |  |
| H319: Causes serious eye irritation  |   | P302+352: IF ON SKIN: Wash with soap and water   |                          |  |
| ,<br>H335: May cause respiratory irritation  | n   | D222, 212, If this instantion accurs. Out and ited at ited (attac  |                          |  |
| H402: Harmful to aquatic life  |   | P332+313: If skin irritation occurs: Get medical advice/atter  | ition                    |  |
| OSHA Defined Hazards   |   | P362: Take off contaminated clothing and wash before reuse<br>P363: Wash contaminated clothing before reuse                |                          |  |
| This product does NOT contain any products considered hazardous under the Federal OSHA HazCom. Standard 29 CFR 1910.1200.  |   | P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing                  |                          |  |
| HNOC - Hazards Not Otherwise Classified  |   |  | augusta Demons           |  |
| No other hazards classified  |   | P305+351+338: IF IN EYES: Rinse cautiously with water for s<br>contact lenses if present and easy to do – continue rinsing | everal minutes. Remove   |  |
|  | Signal Word                                       | P403+233: Store in a well-ventilated place. Keep container<br>P405: Store locked up  | rightly closed           |  |
| V Warning  |   | <b>P501</b> : Dispose of contents/container to local, state and fed  | aral regulations         |  |

| SECTION 3 Composition/information On Ingredients |                             |  |          |  |
|--|-----------------------------|--|----------|--|
| Molecular Wei                                    | ght: 132.06                 | Chemical FORMULA: (NH4) <sub>2</sub> H PO <sub>4</sub> |          |  |
| CAS#:  | Common Name/Synonyms:       |  | % by Wt. |  |
| 7783-28-0  | Ammonium Phosphate, Dibasic |  | 100%     |  |
|  |                             |  |          |  |
|  |                             |  |          |  |

## **SECTION 4 - First Aid Information**

## Description of first aid measures

## General Advice:

Treat symptomatically. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## If Inhaled:

Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardiopulmonary resuscitation). Seek medical attention. Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. **NOTE: See Section 16 - Other Information on SDS.** 

## In Case Of Skin Contact:

Product may irritate the skin. In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before reuse. Skin contact may aggravate existing skin disease.

## In Case Of Eye Contact:

Flush eyes with large quantities of running water for a minimum of 15 minutes. If present and easy to do, remove contact lenses. Hold eyelids apart during the flushing to ensure rinsing of entire surface of the eye and lids with water. DO NOT let victim rub eye(s). Do not attempt to neutralize with chemical agents. Oils/ointments should not used at this time. Get medical attention if eye irritation occurs.

## If Swallowed:

If product is ingested, irritation and nausea may occur. Give several glasses of water. Never give anything to eat or drink to someone who is unconscious, having convulsions, or unable to swallow. If vomiting occurs, keep head below hips to reduce risk of aspiration. Give fluids again. Seek medical attention if health effects occur. Do not induce vomiting.

#### Most important symptoms and effects, both acute and delayed:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

## Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

## **SECTION 5 - Fire And Explosion Data**

#### **Suitable Extinguishing Media:**

Use extinguishing method suitable for surrounding fire. Water. Foam. Dry chemical powder. Carbon dioxide (CO2) Not considered to be a fire hazard.

## UnSuitable Extinguishing Media:

None known

## Specific Hazards arising from the chemical:

None Not combustible. Under conditions of fire this material may produce: Ammonia. Oxides of nitrogen, oxides of phosphorus.

## Special protective equipment and precautions for fire-fighters:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Move containers from fire area if you can do it without risk.

#### Fire-fighting equipment/instructions

Keep unnecessary people away, isolate hazard area and deny entry. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

## **Specific Methods**

In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk.

## **Section 6 - Accidental Release Measures**

## Personal precautions, protective equipment and emergency procedures:

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment as recommended in Section 8. Wear appropriate protective gear for the situation. Ventilate area of leak or spill.

#### **Environmental Precautions:**

Dike or retain dilution water or water from fire fighting for later disposal. Prevent material from entering public sewer system or any waterways. Runoff from fire control or dilution water may cause pollution.

## Methods and Materials for Containment and Clean Up:

Sweep or vacuum up and place in an appropriate closed container. DO NOT RETURN MATERIAL TO ITS ORIGINAL CONTAINER. Clean up residual material by washing area with water and detergent. Prevent material from entering public sewer system or any waterways. If not contaminated, recover and reuse product.

#### Section 7- Handling and Storage

#### Precautions for safe handling:

Avoid direct or prolonged contact with skin and eyes. Avoid generating dust.

## Conditions for safe storage:

Store in tightly closed containers. This product is hygroscopic and tends to cake in storage. Store in an area that is cool, dry with a stable temperature away from heat source. Local and general ventilation: Use only with adequate ventilation.

## Incompatibilites:

Strong bases, sodium hypo chlorite, combustible materials, reducing agents, acids, alkalis, chlorates, chlorides, chromates, nitrates, perinanganates, metallic powder, substances containing copper, nickel, cobalt, zinc and their alloys.

## **Section 8 - Exposure Control and Personal Protection**

#### **Occupational Exposure Limits:**

| Chemical Identity:          |           | Exposure | Limit Values | SOURCE                       | OSHA/PPM |  |
|-----------------------------|-----------|----------|--------------|------------------------------|----------|--|
|                             |           | TWA      | STEL         | SOURCE                       | PEL      |  |
| Ammonium Phosphate, Dibasic | 7783-28-0 | 3mg/m3   | 10mg/m3      | ACGIH Threshold Limit Values | None     |  |
|                             |           |          | ACS Y        | ACGIH Threshold Limit Values |          |  |
|                             |           |          | 101          | ACGIH Threshold Limit Values |          |  |

#### **Exposure Limits and Appropriate Engineering Controls:**

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting OSHA requirements. The following limits (ACGIH, OSHA and other) apply to this material, where, if indicated, S=skin and C=ceiling limit: ACGH TLV/TWA PARTICULATES NOT OTHERWISE CLASSIFIED : 10mg/cubic meter(INHALABLES)

## Individual Protection Measures, (Personal Protective Equipment): Eye Protection

Wear Safety Glasses. Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.

## **Skin Protection**

Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e. shirts and pants). Consideration must be given to both to durability as well as permeation resistance.

## **Other Protection:**

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the above listed and following traditional exposure control techniques may be used to effectively minimize employee exposures.

## **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.

#### **Ventilation Limits:**

Provide Natural or Mechanical ventilation to minimize exposure. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

#### **Hygienic Practices:**

All food / smoking materials should be kept in a separate area away from the storage/use location. Eating, drinking and smoking should be prohibited in areas where there is a potential for significant exposure to this material. Before eating, drinking or smoking, hands and face should be thoroughly washed. Facilities storing or using this material should be equipped with an eyewash and safety shower.

#### **Section 9 - Physical and Chemical Properties**

| Appearance And Odor: | Granules with ammonia-like odor |                        |                   |
|----------------------|---------------------------------|------------------------|-------------------|
| pH:                  | 7.7 - 8.1                       |                        |                   |
| Melting Point:       | May decompose before melting    | Flammable Limits:      | No data available |
| Freezing Point:      | No data available               | UEL:                   | No data available |
| Boiling Point:       | 225° F                          | LEL:                   | No data available |
| Flash Point:         | No data available               | Vapor Pressure(mm/hg): | No data available |
| Evaporation Rate:    | No data available               | Vapor Density(air=1):  | No data available |
| Solubilities:        | 57wt/wt% at 10° C               | Autoignition Temp:     | No data available |
| Specific Gravity:    | No data available               | Decomposition Temp:    | No data available |
| Bulk Density:        | 1.0 gram/liter                  | Reactivity In Water:   | No data available |
| Other Information:   | No data available               | Viscosity:             | No data available |

## Section 10 - Stability and Reactivity

#### Chemical Stability and Reactivity:

This material is stable under normal handling and storage conditions.

## Possible Hazardous Reactions:

Will not occur under normal processing conditions

## **Conditions to Avoid:**

Extreme heat, rain, dusting conditions, extreme humidity

## Incompatible Materials:

Strong bases, sodium hypo chlorite, combustible materials, reducing agents, acids, alkalis, chlorates, chlorides, chromates, nitrates, perinanganates, metallic powder, substances containing copper, nickel, cobalt, zinc and their alloys.

## Hazardous Decomposition Products:

Water vapor and toxic gases such as nitrogen oxides, ammonia, chlorine, and hydrogen chlorine, phosphoric acid may be given off. Hazardous polymerization does not occur.

## Section 11- Toxicological Information

Information On The Likely Routes Of Exposure: Inhalation, Ingestion and Dermal.

Symptoms Related To The Physical, Chemical And Toxicological Effects: Inhalation Effects:

> 5000 mg/m3, 4 hours

Skin Effects: > 7940 mg/kg Sprague-Dawley Rabbit

**Dermal Toxicity:** > 5000 mg/kg Sprague-Dawley Rat

## Eye Effects:

Slightly irritating (Rabbit, 2.2/110.0, 24 hour exp) Symptoms can include irritation, redness, scratching of the cornea, and tearing.

## Ingestion Effects:

Practically Nontoxic (Rat dosage LD50 > 5750 mg/kg)

## Sensitization:

No information available.

## Carcinogenicity/Mutagenicity:

This product does not contain any ingredients designated by IARC, NTP, ACGIH or OSHA as a probable or suspected human carcinogen. Mutagenicity - lymphocyte result: negative.

## **Reproductive Effects:**

Contains no ingredient listed as toxic to reproduction.

## Neurotoxicity:

No data found for this product.

## **Target Organs:**

No data found for this product. Frequent inhalation of fume/dust over a long period of time increases the risk of developing lung diseases.

## Additional Toxicological Information: None

| Section 12- Ecological Information     |  |  |  |  |
|--|--|--|--|--|
| Ecotoxicity:                           | Daphnia LC50 1790 mg/l, 96 hours; Carp, hawk fish (Cirrhinus mrigala 1700 mg/l, 96 hours |  |  |  |
| Degradability:                         | There are no data on the degradability of this product.                                  |  |  |  |
| Bioaccumulative potential:             | No data available.   |  |  |  |
| Mobility in the Soil:                  | The product is water soluble and may spread in water systems.                            |  |  |  |
| Additional Adverse effect on environ   | ment:  |  |  |  |
| LC50 - lethal concentration 50% of tes | st species 155 mg/1/96 hr. fish: Pimenhales promelas                                     |  |  |  |

LC50 - lethal concentration 50% of test species, 155 mg/l/96 hr, fish: Pimephales promelas.

## **SECTION 13 - Disposal Considerations**

## **Disposal Instructions and Regulations:**

Chemical additions, processing or otherwise altering material may make the waste management information presented in MSDS incomplete, inaccurate or otherwise inappropriate. Be advised that state/local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state/local regulations regarding proper disposal of this material.

## Hazardous Waste Code: Not considered a hazardous waste.

#### **Container Disposal Information:**

Be advised that state/local requirements for container disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state/local regulations regarding proper disposal of container.

#### Section 14 - Transport Information

| US DOT, IATA, IMO, Al<br>Proper Shipping Name: | DR:<br>Ammonium Phosphate, Dibasic |                       |                           |
|--|------------------------------------|-----------------------|---------------------------|
| D. O. T. Hazard Class:                         | Not regulated by D.O.T.            | UN #:                 | N/A                       |
| Label Requirement:                             | None                               | RQ:                   | N/A                       |
| Placard:                                       | None                               | CAS:                  | 7783-28-0                 |
| Packing Group:                                 | N/A                                | ERG Book Information: | 171                       |
| Environment Hazards:                           | N/Ap                               | Marine Pollutant:     | N/Ap                      |
| Special Precautions:                           | N/Ap                               | IATA: Not reg         | ulated as dangerous goods |

## Section 15 - Regulatory Information

#### **US Federal - OSHA Status:**

This product does NOT contain any products considered hazardous under the Federal OSHA HazCom. Standard 29 CFR 1910.1200.

**TSCA Status:** 

Listed/Reportable

#### **U.S. SARA Reporting Requirements:**

#### SARA Title III Hazard Classes Section 302 - EXTREMELY HAZARDOUS SUBSTANCES:

This product does NOT contain ingredients listed in Appendix A and B as Extremely Hazardous substances.

## SARA Title III Hazard Classes Sections 311/312:

Immediate (acute) health hazard

## SARA Section 313 Toxic Chemicals:

This product contains the following toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act:

## CAS# Chemical Name:

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels.

## SARA Superfund Section 110:

This product does not contain ingredients listed as hazardous substances on the Priority List of CERCLA Hazardous substances.

## CERCLA, 40 CFR 117, 302:

This product does NOT contain ingredients specified in the List of Extremely Hazardous Substances.

## CERCLA listed substances are:

none

#### **Other Federal Reporting Requirements:**

| CAA:  | This product does NOT contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act |
|-------|--|
| CWA:  | NO chemicals in product are listed a Hazardous Substances, Priority Pollutants or Toxic Pollutants under the CWA.                |
| RCRA: | NOT considered a hazardous waste.  |

#### **State Reporting Requirements:**

#### State Right to Know Laws:

CAS# State RTK

Chemical Name

## **CALIFORNIA PROPOSITION 65:**

This product does NOT contain a chemical or chemicals subject to California Proposition 65.

## Michigan Critical Materials:

This product does NOT contain ingredients listed on the Michigan Critical Materials Register.

| Global Lists/International Inventories: |   |  |  |
|---|---|--|--|
| Canada CEPA:<br>Canada WHMIS:           | All intentional ingredients are listed on the DSL.<br>Not controlled. |  |  |
|   | Not controlled.   |  |  |

## **SECTION 16 - Other Information**

## Medical Conditions Possibly Aggravated by Exposure:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. **Notes to Physician:** 

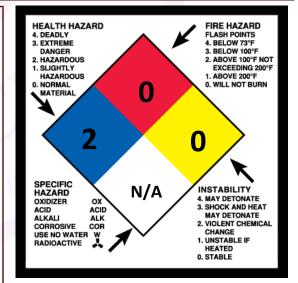
Ingestion of large quantities of phosphate salts (over 1.0 grams for an adult) may cause an osmotic catharsis resulting in diarrhea and probable abdominal cramps. Larger doses such as 4-8 grams will almost certainly cause these effects in everyone. In healthy individuals most of the ingested salt will be excreted in the feces with the diarrhea and, thus, not cause any systemic toxicity. Doses greater than 10 grams hypothetically may cause systemic toxicity. Treatment should take into consideration both anionic and cation portion of the molecule. The following treatments should be considered for the specific group(s) of phosphate salts found in this product.

All phosphate salts, except calcium salts, have a hypothetical risk of hypocalcemia, so calcium levels should be monitored.

Ammonium salts have a hypothetical risk of ammonia toxicity. In addition to calcium levels, ammonia and phosphate levels should be monitored.

Potassium salts have a hypothetical risk of hyperkalemia which can cause cardiac arrhythmia. In addition to calcium levels, potassium and phosphate levels should be monitored. Also consider continuous EKG monitoring to detect hyperkalemia. Sodium salts have a hypothetical risk of hypernatremia. In addition to calcium levels, sodium and phosphate levels should be monitored.

4-15-15 SDS reviewed - updated to GHS requirements. This replaces all previous MSDS's - 10-17-16 - All sections reviewed for final GHS Classification.
1-15-17 Reviewed No changes



## Date of last revision:

1-15-2017

NOTICE: OSHA STANDARD 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a Hazard Communication Program including training, labeling, Material Safety Data Sheets, and access to written records. We request that you, and it is your legal duty, make all information in this Material Safety Data Sheet available to your employees.

## **Key Legend Information:**

| N/Ap:           | Not Applicable   |         |  |
|-----------------|--|---------|--|
| N/R:            | Not Rated  | ND:     | Not Determined   |
| ACGI            | American Conference of Govr'ntal Industrial Hygienists | NDA:    | No Data Available                                      |
| OSHA:           | Occupational Safety and Health Administration          | TLV:    | Threshold Limit Value                                  |
| PEL:            | Permissible Exposure Limit                             | TWA:    | Time Weighted Average                                  |
| STEL:           | Short Term Exposure Limit                              | NTP:    | National Toxicology Program                            |
| IARC:           | International Agency for Research on Cancer            | TSCA:   | Toxic Substance Control Act                            |
| SARA Title III: | Superfund Amendments and Reauthorization Act           | CERCLA: | Comprehensive Response, Compensation and Liability Act |
| CAA:            | Clean Air Act  | CWA:    | Clean Water Act  |
| RCRA:           | Resource Conservation Recovery Act                     |         |  |
| IATA:           | International Air Transport Association Shipping Info. | IMO:    | International Maritime Organization Shipping Info.     |
| DSL:            | Domestic Substance List (Canada)                       | WHMIS:  | Workplace Hazardous Materials Information System       |

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