Material Safety Data Sheet

Ammonium phosphate dibasic

sc-202947

Hazard Alert Code
Key:

EXTREME HIGH MODERATE LOW

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Ammonium phosphate dibasic

STATEMENT OF HAZARDOUS NATURE

NFPA

SUPPLIER
Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

EMERGENCY
ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SYNONYMS

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
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<tbody>
<tr>
<td>Flammability</td>
<td>0</td>
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</tr>
<tr>
<td>Toxicity</td>
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<td></td>
</tr>
<tr>
<td>Body Contact</td>
<td>2</td>
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<tr>
<td>Reactivity</td>
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<tr>
<td>Chronic</td>
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</table>

CANADIAN WHMIS SYMBOLS

Min/Nil=0
Low=1
Moderate=2
High=3
Extreme=4
EMERGENCY OVERVIEW

RISK
Irritating to eyes, respiratory system and skin.
May cause long-term adverse effects in the aquatic environment.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED
- Accidental ingestion of the material may be damaging to the health of the individual.
- As absorption of phosphates from the bowel is poor, poisoning this way is less likely.

Effects can include vomiting, tiredness, fever, diarrhoea, low blood pressure, slow pulse, cyanosis, spasms of the wrist, coma and severe body spasms.
- Large doses of ammonia or injected ammonium salts may produce diarrhoea and may be sufficiently absorbed to produce increased production of urine and systemic poisoning.

Symptoms include weakening of facial muscle, tremor, anxiety, reduced muscle and limb control.

EYE
- This material can cause eye irritation and damage in some persons.

SKIN
- This material can cause inflammation of the skin oncontact in some persons.
- The material may accentuate any pre-existing dermatitis condition.
- Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.
- Open cuts, abraded or irritated skin should not be exposed to this material.
- Solution of material in moisture on the skin, or perspiration, may increase irritant effects.
- Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
- Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
- Mild skin reaction is seen with contact of the vapour of this material on moist skin.

High concentrations or direct contact with solutions produces severe pain, a stinging sensation, burns and blisters and possible brown stains.

INHALED
- The material can cause respiratory irritation in some persons.

The body's response to such irritation can cause further lung damage.
- Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.
- If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.
- The highly irritant properties of ammonia vapour result as the gas dissolves in mucous fluids and forms irritant, even corrosive solutions.

Inhalation of the ammonia fumes causes coughing, vomiting, reddening of lips, mouth, nose, throat and conjunctiva while higher concentrations can cause temporary blindness, restlessness, tightness in the chest, pulmonary oedema (lung damage), weak pulse and cyanosis.

CHRONIC HEALTH EFFECTS
- Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray.

Sodium phosphate dibasic can cause stones in the kidney, loss of mineral from the bones and loss of thyroid gland function.

Prolonged or repeated minor exposure to ammonia gas/vapour may cause long-term irritation to the eyes, nose and upper respiratory tract. Repeated exposure or prolonged contact may produce dermatitis, and conjunctivitis.<.
Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium phosphate dibasic</td>
<td>7783-28-0</td>
<td>&gt;98</td>
</tr>
</tbody>
</table>

Gradually decomposes on exposure to air & evolves ammonia 1336-21-6

Section 4 - FIRST AID MEASURES

SWALLOWED
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

EYE
If this product comes in contact with the eyes
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.

SKIN
If skin contact occurs
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED
- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

NOTES TO PHYSICIAN
- Treat symptomatically.
- For irritant gas exposures
  - the presence of the agent when it is inhaled is evanescent (of short duration) and therefore, cannot be washed away or otherwise removed
  - arterial blood gases are of primary importance to aid in determination of the extent of damage. Never discharge a patient significantly exposed to an irritant gas without obtaining an arterial blood sample.
  - supportive measures include suctioning (intubation may be required), volume cycle ventilator support (positive and expiratory pressure (PEEP), steroids and antibiotics, after a culture is taken
  - If the eyes are involved, an ophthalmologic consultation is recommended
- For acute or short term repeated exposures to ammonia and its solutions
  - Mild to moderate inhalation exposures produce headache, cough, bronchospasm, nausea, vomiting, pharyngeal and retrosternal pain and conjunctivitis. Severe inhalation produces laryngospasm, signs of upper airway obstruction (stridor, hoarseness, difficulty in speaking) and, in excessively, high doses, pulmonary oedema.
  - Warm humidified air may soothe bronchial irritation.
  - Test all patients with conjunctival irritation for corneal abrasion (fluorescein stain, slit lamp exam)
  - Dyspneic patients should receive a chest X-ray and arterial blood gases to detect pulmonary oedema.

Section 5 - FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Vapour Pressure (mmHg)</th>
<th>Negligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Explosive Limit (%)</td>
<td>Not applicable</td>
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<tr>
<td>Specific Gravity (water=1)</td>
<td>1.62 @ 4 deg. C.</td>
</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
<td>Not applicable</td>
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</tbody>
</table>

EXTINGUISHING MEDIA
There is no restriction on the type of extinguisher which may be used.
Use extinguishing media suitable for surrounding area.

**FIRE FIGHTING**
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

**GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS**
- Non combustible.
- Not considered a significant fire risk, however containers may burn.
Decomposition may produce toxic fumes of nitrogen oxides (NOx), phosphorus oxides (POx).
May emit poisonous fumes.
May emit corrosive fumes.
Decomposes on heating and produces polyphosphoric acid; toxic fumes of ammonia.

**FIRE INCOMPATIBILITY**
None known.

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**Section 6 - ACCIDENTAL RELEASE MEASURES**

**MINOR SPILLS**
- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Control personal contact by using protective equipment.

**MAJOR SPILLS**
Moderate hazard.
- **CAUTION** Advise personnel in area.
- Alert Emergency Services and tell them location and nature of hazard.
- Control personal contact by wearing protective clothing.
- Prevent, by any means available, spillage from entering drains or water courses.

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**Section 7 - HANDLING AND STORAGE**

**PROCEDURE FOR HANDLING**
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

**RECOMMENDED STORAGE METHODS**
- Glass container is suitable for laboratory quantities
- DO NOT use aluminium or galvanised containers
- DO NOT use mild steel or galvanised containers
- DO NOT use unlined steel containers
- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

**STORAGE REQUIREMENTS**
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

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**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE CONTROLS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Material</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
<th>Peak ppm</th>
<th>Peak mg/m³</th>
<th>TWA F/CC</th>
<th>Notes</th>
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<tr>
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<tr>
<td>Location</td>
<td>Substance Description</td>
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<tr>
<td><strong>Canada - British Columbia Occupational Exposure Limits</strong></td>
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<td><strong>US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants</strong></td>
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<td><strong>US - California Permissible Exposure Limits for Chemical Contaminants</strong></td>
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<td><strong>US - Oregon Permissible Exposure Limits (Z-1)</strong></td>
<td>diammonium phosphate (Particulates not otherwise regulated (PNOR) (f) Total Dust)</td>
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<td><strong>US - Michigan Exposure Limits for Air Contaminants</strong></td>
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<td><strong>US - Oregon Permissible Exposure Limits (Z-1)</strong></td>
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Bold print identifies substances for which the Oregon Permissible Exposure Limits (PELs) are different than the federal Limits. PNOR means “particles not otherwise regulated.”
(f) Respirable Fraction

<table>
<thead>
<tr>
<th>Source</th>
<th>Substance</th>
<th>Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances</th>
<th>US - Minnesota Permissible Exposure Limits (PELs)</th>
<th>US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)</th>
<th>US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)</th>
<th>US NIOSH Recommended Exposure Limits (RELs)</th>
<th>Canada - Alberta Occupational Exposure Limits</th>
<th>Canada - British Columbia Occupational Exposure Limits</th>
<th>US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants</th>
<th>US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air</th>
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<td>diammonium phosphate</td>
<td>ammonia (Ammonia) 25 18 40 30</td>
<td>ammonia (Ammonia) 35 27</td>
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<td>ammonia () 25 18 35 27</td>
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<td>TLV® Basis Eye dam; URT irr</td>
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<td>Location</td>
<td>Permissible Exposure Values for Airborne Contaminants (English)</td>
<td>US OSHA Permissible Exposure Levels (PELs) - Table Z1</td>
<td>Canada - Nova Scotia Occupational Exposure Limits</td>
<td>Canada - Prince Edward Island Occupational Exposure Limits</td>
<td>US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants</td>
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<td>TLV Basis eye damage; upper respiratory tract irritation</td>
<td>TLV® Basis Eye damage; URT irr</td>
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</table>

**PERSONAL PROTECTION**

**RESPIRATOR**
- Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 1432000 & 1492001, ANSI Z88 or national equivalent)

**EYE**
- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lenses should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

**HANDS/FEET**
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include
- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
gexterity
Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.
- polychloroprene
- nitrile rubber
- butyl rubber
- fluorocacoutchouc

**OTHER**
- Overalls.
• P.V.C. apron.
• Barrier cream.
• Skin cleansing cream.

ENGINEERING CONTROLS

CARE Explosive vapour air mixtures may be present on opening vessels which have contained liquid ammonia. Fatalities have occurred.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:
- Process controls which involve changing the way a job activity or process is done to reduce the risk.
- Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

| State                  | Divided solid | Molecular Weight | Viscosity | Solubility in water (g/L) | pH (1% solution) | Decomposition Temp (°F) | pH (as supplied) | Autoignition Temp (°F) | Vapour Pressure (mmHG) | Upper Explosive Limit (%) | Specific Gravity (water=1) | Lower Explosive Limit (%) | Relative Vapour Density (air=1) | Volatile Component (%vol) | Evaporation Rate | Not Applicable | Negligible | Not Applicable | 1.62 @ 4 deg. C. | Not applicable | Not applicable | Negligible | Not applicable | Not applicable |
|------------------------|---------------|------------------|-----------|---------------------------|------------------|------------------------|------------------|------------------------|------------------------|-----------------------------|---------------------------|--------------------------|----------------------------|---------------------------|----------------------|---------------|-------------|-------------|---------------|---------------|---------------|-------------|---------------|-------------|---------------|
| Melting Range (°F)     | 311 (decomposes) | 132.06           | Not Applicable | Miscible                  | 8 @ 25 deg. C.   | 311                    | Not applicable        | Vapour Pressure (mmHG) | Negligible            | Not applicable               |                          |                          |                            | Negligible               | Not Applicable | Not Applicable | Negligible | Not applicable | 1.62 @ 4 deg. C. | Not applicable | Not applicable | Negligible | Not applicable | Not applicable |
| Boiling Range (°F)     | decomposes    |                  |            |                           |                  |                       |                  |                        |                        |                            |                          |                          |                            |                          |                     |               |             |             |               |               |               |             |               |             |               |
| Flash Point (°F)       | Not Applicable |                  |            |                           |                  |                       |                  |                        |                        |                            |                          |                          |                            |                          |                     |               |             |             |               |               |               |             |               |             |               |
| Decomposition Temp (°F)| 311           |                  |            |                           |                  |                       |                  |                        |                        |                            |                          |                          |                            |                          |                     |               |             |             |               |               |               |             |               |             |               |
| Autoignition Temp (°F) | Not applicable |                  |            |                           |                  |                       |                  |                        |                        |                            |                          |                          |                            |                          |                     |               |             |             |               |               |               |             |               |             |               |
| Upper Explosive Limit (%) | Not applicable |                  |            |                           |                  |                       |                  |                        |                        |                            |                          |                          |                            |                          |                     |               |             |             |               |               |               |             |               |             |               |
| Lower Explosive Limit (%) | Not applicable |                  |            |                           |                  |                       |                  |                        |                        |                            |                          |                          |                            |                          |                     |               |             |             |               |               |               |             |               |             |               |
| Volatile Component (%vol) | Negligible     |                  |            |                           |                  |                       |                  |                        |                        |                            |                          |                          |                            |                          |                     |               |             |             |               |               |               |             |               |             |               |
| APPEARANCE             | Available as food grade, technical grade and fertiliser grade. Crystals or powder. Solubility is 58 g/100g at 20 deg. C. Mildly alkaline in reaction. Insoluble in ethanol, alcohol, acetone and ammonia. Odourless but has been reported as having a weak ammonia odour. Gradually decomposes and loses ammonia on exposure to air. This process is accelerated by heating. Slightly hygroscopic and tends to cake on storage. Taste is 'cooling saline'. |

Section 10 - CHEMICAL STABILITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

STORAGE INCOMPATIBILITY

For ammonia:
- Ammonia forms explosive mixtures with oxygen, chlorine, bromine, fluorine, iodine, mercury, platinum and silver.
- Fire and/or explosion may follow contact with acetaldehyde, acrolein, aldehydes, alkyene oxides, amidies, antimony, boron, boron halides, bromine chloride, chloric acid, chlorine monoxide, o-chloronitrobenzene, 1-chloro-2,4-nitrobenzene, chlorosilane, chloromelamine, chromium trioxide, chromyl chloride, epichlorohydrin, hexachloromelamine, hypochlorites (do NOT mix ammonia with liquid household bleach), isocyanates, nitrogen tetraoxide, nitrogen trichloride, nitrile chloride, organic anhydrides, phosphorous trioxide, potassium ferricyanide, potassium mercuric cyanide, silver chloride, tellurium halides, tellurium hydrosulphide, tetramethylammonium amide, trimethylammonium amide, trioxen difluoride, vinyl acetate.
- Shock-, temperature-, and pressure sensitive compounds are formed with antimony, chlorine, germanium compounds, halogens, heavy metals, hydrocarbons, mercury oxide, silver compounds (azides, chlorides, nitrates, oxides).
- Vapours or solutions of ammonia are corrosive to copper, copper alloys, galvanised metal and aluminium. Mixtures of ammonia and air lying within the explosive limits can occur above aqueous solutions of varying strengths.
- Phosphates are incompatible with oxidising and reducing agents.
- Phosphates are susceptible to formation of highly toxic and flammable phosphine gas in the presence of strong reducing agents such as hydrides.
Partial oxidation of phosphates by oxidizing agents may result in the release of toxic phosphorus oxides. Diammonium phosphate (syn ammonium phosphate, dibasic) slowly forms anhydrous ammonia on contact with air forms anhydrous ammonia gas on contact with caustics reacts violently with strong oxidisers, magnesium, potassium chlorate, strong bases reacts with antimony(V) pentafluoride, lead diacetate, magnesium, silver nitrate, zinc acetate

For incompatible materials - refer to Section 7 - Handling and Storage.

**Section 11 - TOXICOLOGICAL INFORMATION**

**Diammonium Phosphate**

**TOXICITY AND IRRITATION**
- Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

**CARCINOGEN**

**ammonia** US - Rhode Island Hazardous Substance List IARC

**Section 12 - ECOLOGICAL INFORMATION**

May cause long-term adverse effects in the aquatic environment.

**Ecotoxicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
<th>Bioaccumulation</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ammonia</td>
<td>LOW</td>
<td>No Data Available</td>
<td>LOW</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

**GESAMP/EHS COMPOSITE LIST - GESAMP Hazard Profiles**

<table>
<thead>
<tr>
<th>Name / EHS</th>
<th>TRN</th>
<th>A1a</th>
<th>A1b</th>
<th>A1</th>
<th>A2</th>
<th>B1</th>
<th>B2</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diammonium Hydrogen Phosphate / CAS:7783-28-0 /</td>
<td>117</td>
<td>0</td>
<td>0</td>
<td>Ino</td>
<td>Nr</td>
<td>1</td>
<td>Nl</td>
<td>0</td>
<td>0</td>
<td>(0)</td>
<td>(1)</td>
<td>(1)</td>
<td>D</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: EHS=EHS Number (EHS=GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships) NRT=Net Register Tonnage, A1a=Bioaccumulation log Pow, A1b=Bioaccumulation BCF, A1=Bioaccumulation, A2=Biodegradation, B1=Acute aquatic toxicity LC/ECIC50 (mg/l), B2=Chronic aquatic toxicity NOEC (mg/l), C1=Acute mammalian oral toxicity LD50 (mg/kg), C2=Acute mammalian dermal toxicity LD50 (mg/kg), C3=Acute mammalian inhalation toxicity LC50 (mg/kg), D1=Skin irritation & corrosion, D2=Eye irritation& corrosion, D3=Long-term health effects, E1=Tainting, E2=Physical effects on wildlife & benthic habitats, E3=Interference with coastal amenities, For column A2: R=Readily biodegradable, NR=Not readily biodegradable. For column D3: C=Carcinogen, M=Mutagenic, R=Reprotoxic, S=Sensitising, A=Aspiration hazard, T=Target organ systemic toxicity, L=Lung injury, N=Neurotoxic, I=Immunotoxic. For column E1: NT=Not tainting (tested), T=Tainting test positive. For column E2: F=Persistent floator, Fp=Persistent floator, S=Sinking substances. The numerical scales start from 0 (no hazard), while higher numbers reflect increasing hazard. (GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships)

**Section 13 - DISPOSAL CONSIDERATIONS**

**Disposal Instructions**

All waste must be handled in accordance with local, state and federal regulations. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
A Hierarchy of Controls seems to be common - the user should investigate:
- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. In most instances the supplier of the material should be consulted.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

### Section 14 - TRANSPORTATION INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

### Section 15 - REGULATORY INFORMATION

**diammonium phosphate (CAS: 7783-28-0)** is found on the following regulatory lists;
"Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that are Inherently Toxic to the Environment (English)","Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that are Inherently Toxic to the Environment (French)","Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that are Persistent and Inherently Toxic to the Environment (PIT) (English)","Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that meet the ecological criteria for categorization (English)","Canada Domestic Substances List (DSL)","Canada Substances in Products Regulated Under the Food and Drugs Act (F&DA) That Were In Commerce between January 1, 1987 and September 13, 2001 (English)","GESAMP/EHS Composite List - GESAMP Hazard Profiles","IMO IBC Code Chapter 17: Summary of minimum requirements","International Council of Chemical Associations (ICCA) - High Production Volume (HPV) Chemicals","US DOE Temporary Emergency Exposure Limits (TEELs)","US EPA High Production Volume Chemicals Additional List","US FDA CFSAN GRAS Substances evaluated by the Select Committee on GRAS Substances (SCOGS)","US FDA Everything Added to Food in the United States (EAFUS)","US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"

**Regulations for ingredients**

**ammonia (CAS: 1336-21-6)** is found on the following regulatory lists;
"Canada - Saskatchewan Industrial Hazardous Substances","Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances","Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that are Inherently Toxic to the Environment (English)","Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that are Inherently Toxic to the Environment (French)","Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that are Persistent and Inherently Toxic to the Environment (PIT) (English)","Canada CEPA Environmental Registry Substance Lists - List of substances on the DSL that meet the ecological criteria for categorization (English)","Canada Domestic Substances List (DSL)","Canada Substances in Products Regulated Under the Food and Drugs Act (F&DA) That Were In Commerce between January 1, 1987 and September 13, 2001 (English)","GESAMP/EHS Composite List - GESAMP Hazard Profiles","International Fragrance Association (IFRA) Survey: Transparency List","OECD List of High Production Volume (HPV) Chemicals","US - California Occupational Safety and Health Regulations (OSHA)","US - Georgia Occupational Safety and Health Regulations (GOSHA) - Hazardous Substances List","US - Hawaii Hazardous Substance List","US - Iowa Hazardous Substance List","US CWA (Clean Water Act) - List of Hazardous Substances","US CWA (Clean Water Act) - Reportable Quantities of Designated Hazardous Substances","US Department of Transportation (DOT) List of Hazardous Substances and Reportable Quantities - Hazardous Substances Other Than Radionuclides","US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"

**Dietary Additives**

- "US FDA CFSAN GRAS Substances evaluated by the Select Committee on GRAS Substances (SCOGS)",
- "US FDA Everything Added to Food in the United States (EAFUS)",
- "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"

### Section 16 - OTHER INFORMATION

LIMITED EVIDENCE
Ingestion may produce health damage*. Cumulative effects may result following exposure*. *(limited evidence).

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

For detailed advice on Personal Protective Equipment, refer to the following U.S. Regulations and Standards:

OSHA Standards - 29 CFR:
1910.132 - Personal Protective Equipment - General requirements
1910.133 - Eye and face protection
1910.134 - Respiratory Protection
1910.136 - Occupational foot protection
1910.138 - Hand Protection
Eye and face protection - ANSI Z87.1
Foot protection - ANSI Z41
Respirators must be NIOSH approved.

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