

1 IDENTIFICATION

Product Name

Diamond Liquid Fertilizers

Applicable Products

3-18-18 Diamond; 3-18-18-1 Diamond; 5-15-15 Diamond; 9-18-9 Diamond; 10-10-10 Diamond; 10-15-10 Diamond

Recommended Chemical Use and Restrictions

See product label for "Directions For Use". Restrictions can be found in Section 10 "Conditions to Avoid".

Supplier

Nutra Flo Company
1919 Grand Avenue
Sioux City, IA 51106
Tel: 712-277-2011

Emergency Telephone

Chemtrek 1-800-424-9300 available 24 hours a day

2 HAZARD IDENTIFIATION

Directive 67/548/EEC

Chemical compounds that make up this product are NOT identified in Annex I of Directive 67/548/EEC

Health Hazards

Ammonium Orthophosphate, Dibasic - The substance can be absorbed into the body by inhalation of its aerosol. **Urea** - Suspected: Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, and Neurotoxicant

Physical Hazards

This product is NOT a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Environmental Hazards

Not Established

3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Common Name / Synonyms	CAS-No.	Concentration
Urea	Carbamide, Carbamidic acid, Carbonyl diamide, and Isourea	57-13-6	0 – 15 %
Ammonium Orthophosphate, Dibasic	Ammonium phosphate, Ammonium phosphatedibasic;; Diammonium hydrogen phosphate; Diammonium phosphate; Dibasic ammonium phosphate	7783-28-0	0 – 25 %
Balance	Product Balance is non-hazardous material.	NA	75 – 85 %

4 FIRST-AID MEASURES

Routes of Exposure

	Urea	Ammonium Orthophosphate, Dibasic
Inhalation	Yes	Yes
Skin	Yes	Yes
Eye Contact	Yes	Yes
Ingestion	Yes	No
Injection	No	No

Symptoms / Effects

Ammonium Orthophosphate, Dibasic - Mist inhalation can result in irritation to the lungs, coughing, choking, difficulty in breathing, lung congestion, or chemical burns. **Urea** – Inhalation - Cough. Shortness of breath. Sore Throat, Skin and Eye contact potential redness; Ingestion - Convulsions. Headache. Nausea. Vomiting.

Immediate Medical / Special Treatment

Move to fresh air. If the person is having trouble breathing, administer oxygen and get medical assistance.

5 FIRE-FIGHTING MEASURES

Suitable / Unsuitable Extinguishing Media

Water Spray	Yes	Dry Chemical	Yes
Foam	Yes	Halon	Yes
Carbon Dioxide	Yes		

Use material suitable for surrounding fire. Several ingredients are actually used as fire retardants.

Specific Hazards

Ammonium Orthophosphate, Dibasic - Not combustible. Gives off irritating or toxic fumes (or gases) in a fire. The substance decomposes on heating above 100°C, on contact with strong bases, producing toxic and corrosive fumes including ammonia, nitrogen oxides and phosphorous oxides. **Urea** - Not combustible. Gives off irritating or toxic fumes in a fire.

Protective Equipment / Precautions for Fire Fighters

Wear full protective clothing and self-contained breathing apparatus. Use water spray to cool containers and control vapors.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions

For small or incidental releases, the minimum personal protective equipment should be chemical resistant gloves and goggles. Dilution with water will reduce the possibility of vapor release.

Protective Equipment

Protective gloves. Safety spectacles. Local exhaust.

Emergency Procedures

Not combustible. Gives off irritating or toxic fumes (or gases) in a fire. In case of fire all extinguishing agents are allowed.

Containment / Clean Up

Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water (extra personal protection: P2 filter respirator for harmful particles).

7 HANDLING AND STORAGE

Handling

Not Established in European Union Regulation (EC) No 1272/2008

Storage

Separated from strong oxidants, strong bases, strong acids. Keep separated from incompatible substances (see Section 10 of MSDS). Keep in a well-ventilated room.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

No Exposure Limits are established for chemical compounds that make up this product.

Engineering Controls

Use general room ventilation or adequate ventilation for comfort.

Individual Protection Measures

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

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear to yellow	Flash Point	NE	Vapor Pressure, mmHg@25°C	NE
Odor	Odorless	Decomposition °	NE	Specific Gravity	1.26 – 1.416
Odor Threshold	NE	Evaporation Rate	NE	Salt-out	-1 to 6°F
pH (10% solution)	7.0 – 8.5	Flammability	NE	Solubility	Soluble

Melting/ Freezing Point	NE	Upper/Lower Flammability Limit	NE	Auto-Ignition °	NE
Boiling Point/ Boiling Range	NE	Upper/Lower Explosive Limits	NE	Viscosity	NE

10 REACTIVITY, STABILITY, AND HAZARDOUS POLYMERIZATION

Reactivity

Ammonium Phosphate Dibasic: The substance decomposes on heating above 100°C, on contact with strong bases, producing toxic and corrosive fumes including ammonia, nitrogen oxides and phosphorus oxides. The solution in water is a weak base. Reacts vigorously with strong acids and strong oxidants. Gradually gives off ammonia on exposure to air. **Urea:** The substance decomposes on heating above melting point producing toxic gases. Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard.

Stability

Material is stable as blended and for recommended use.

Hazardous Polymerization

Not Established

Conditions to Avoid

Exposure to strong oxidants, strong bases, strong acids, and high heat.

Incompatible Materials

Ammonium Phosphate Dibasic: Strong acids and strong oxidants. Urea: Strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates.

Hazardous Decomposition

Not Established

11 TOXICOLOGICAL INFORMATION

Chemical Name: Ammonium Phosphate Dibasic

Inhalation (rat)	NE	Acute	NE
Oral	NE	Chronic	NE
Dermal	NE	Carcinogen	NE
Irritation (skin)	NE	Mutagen	NE
Irritation (eyes)	NE	Target Organs	NE
Sensitization	NE	Symptoms	NE
Inhalation (rat)	NE	Acute	NE

Chemical Name: Urea

Inhalation (rat)	NE	Acute	NE
Oral	NE	Chronic	NE
Dermal	NE	Carcinogen	NE
Irritation (skin)	NE	Mutagen	NE
Irritation (eyes)	NE	Target Organs	NE
Sensitization	NE	Symptoms	NE
Inhalation (rat)	NE	Acute	NE

12 ECOLOGICAL INFORMATION

Environmental Stability

Not Established

Persistence/Degradability

Not Established

Bioaccumulative

Not Established

Mobility in Soil

Not Established

13 DISPOSAL CONSIDERATIONS

Not Established in European Union Regulation (EC) No 1272/2008 for Disposal located in Table 6.5

International Chemical Safety Card (ICSC) #0217 and #0595– Spillage Disposal

Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water. Personal protection: P2 filter respirator for harmful particles

Preparing Waste for Disposal

Waste disposal must be in accordance with appropriate Federal, State, and local regulations.

14 TRANSPORT INFORMATION

172.101 Hazardous Materials Table					App. B	ERG
Proper Shipping Name	Hazard Class or Division	UN ID Number	PG	Label Code	Marine Pollutant	
NE	NE	NE	NE	NE	NE	NE

15 REGULATORY INFORMATION

SARA Reporting Requirements

Not established under EPA/SARA.

TSCA Inventory Status

Chemicals that make up this product can be found on the TSCA Inventory.

California Proposition 65

Not Established

CERCLA Reportable Quantities (RQ)

Not Established

State Regulatory Information

Not Established

Hazardous Material Identification Table

Code	Health	Flammable	Instability/Reactivity
NFPA	2	1	2

Least: 0, Slight: 1, Moderate: 2, High: 3, Extreme: 4

16 OTHER INFORMATION

Not Established in European Union Regulation (EC) No 1907/2006, Directive 1999/45/EC and Chip 2009 N. 716

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