

Safety Data Sheet



Section 1: Identification

Product identifier

- Product Name** • 41-7-0 Dry Fertilizer
- Synonyms** • Forestry Blend

Relevant identified uses of the substance or mixture and uses advised against

- Recommended use** • Fertilizer

Details of the supplier of the safety data sheet

- Manufacturer** • Gavilon Fertilizer, LLC
5 Skidaway Village Walk
Savannah, GA 31411
United States
<http://www.gavilon.com>
sds@gavilon.com
- Telephone (General)** • 912-598-8392 - 7:00 A.M. – 5:00 P.M. EST

Emergency telephone number

- Manufacturer** • 800-424-9300 - CHEMTREC

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

- OSHA HCS 2012** • Skin Irritation 2
Reproductive Toxicity 1B

Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Causes skin irritation
May damage fertility or the unborn child.

Precautionary statements

- Prevention** • Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • If on skin: Wash with plenty of water.
Take off contaminated clothing and wash before reuse.
Specific treatment, see supplemental first aid information.

If skin irritation occurs: Get medical advice/attention.
 IF exposed or concerned: Get medical advice/attention.

- Storage/Disposal**
- Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition			
Chemical Name	Identifiers	%	Classifications According to Regulation/Directive
Urea	CAS:57-13-6	79.6% TO 81.4%	OSHA HCS 2012: Skin Irrit. 2
Phosphoric acid, ammonium salt (1:2)	CAS:7783-28-0	10.8% TO 13.9%	OSHA HCS 2012: Not Classified
Urea, reaction products with formaldehyde	CAS:68611-64-3	1.08% TO 2.25%	OSHA HCS 2012: Not Classified
Biuret	CAS:108-19-0	0.709% TO 1.25%	OSHA HCS 2012: Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3: Resp. Irrit.
Ammonium sulfate	CAS:7783-20-2	0.847% TO 1.15%	OSHA HCS 2012: Not Classified
Source NBPT 20 (Yellow)	NDA	0.2%	OSHA HCS 2012: Eye Dam. 1; Repr. 1B; Skin Irrit 2

1. This Safety Data Sheet is not a guarantee of product specification or NPK value(s). NPK content is on specified sales orders, customer invoices, or product specification sheets obtained from supplier. 2. All concentrations are in percent weight.

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If signs/symptoms continue, get medical attention.

Skin

- Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Rinse mouth. Do not give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- 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.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media • None known.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • No data available

Hazardous Combustion Products • No data available

Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. Keep unauthorized personnel away.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • Avoid generating dust.
SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.
LARGE SPILLS: Cover powder spill with plastic sheet or tarp to minimize spreading.

Section 7 - Handling and Storage

Precautions for safe handling

Handling • Use good safety and industrial hygiene practices. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage • Store in a cool, dry, well-ventilated place.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines

	Result	ACGIH
Ethylene glycol (107-21-1)	STELs	50 ppm STEL (vapor fraction); 10 mg/m ³ STEL (inhalable particulate matter, aerosol only)
	TWAs	25 ppm TWA (vapor fraction)

Exposure controls**Engineering Measures/Controls**

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment).

Personal Protective Equipment**Respiratory**

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	Yellow and brown granules with slight ammonia odor.
Color	Yellow and Brown.	Odor	Slight ammonia odor.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	No data available	Density	46 to 47 lb(s)/ft ³
Water Solubility	No data available	Viscosity	No data available
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	VOC (Wt.)	0 %
VOC (Vol.)	0 %		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity**Reactivity**

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Avoid generating dust.

Incompatible materials

- Strong acids, strong bases, Strong oxidizers.

Hazardous decomposition products

- Under conditions of fire this material may produce: Nitrogen oxides; Biuret; Carbon oxides.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Phosphoric acid, ammonium salt (1:2) (10.8% TO 13.9%)	7783-28-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • >2000 mg/kg; Skin-Rat LD50 • >5000 mg/kg
Ammonium sulfate (0.847% TO 1.15%)	7783-20-2	Acute Toxicity: Ingestion/Oral-Rat LD50 • 2840 mg/kg; Behavioral:Somnolence (general depressed activity); Behavioral:Muscle contraction or spasticity; Lungs, Thorax, or Respiration:Other changes; Skin-Rabbit LD50 • >2000 mg/kg
Urea (79.6% TO 81.4%)	57-13-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 8471 mg/kg; Ingestion/Oral-Rat TDLo • 750 mg/kg; Kidney, Ureter, and Bladder:Urine volume increased; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Na; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:K; Irritation: Skin-Human • 22 mg 3 Day(s)-Intermittent • Mild irritation; Skin-Human • 20 % 24 Hour(s) • Moderate irritation

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	OSHA HCS 2012 • Data lacking
Skin sensitization	OSHA HCS 2012 • Data lacking
Respiratory sensitization	OSHA HCS 2012 • Data lacking
Aspiration Hazard	OSHA HCS 2012 • Data lacking
Carcinogenicity	OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	OSHA HCS 2012 • Toxic to Reproduction 1B
STOT-SE	OSHA HCS 2012 • Data lacking
STOT-RE	OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

- No data available

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- No data available

Eye**Acute (Immediate)**

- Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)

- No data available

Ingestion**Acute (Immediate)**

- May cause discomfort if swallowed.

Chronic (Delayed)

- No data available

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Key to abbreviations

LD = Lethal Dose

TD = Toxic Dose

Section 12 - Ecological Information**Toxicity**

- Non-mandatory section - information about this substance not compiled for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not compiled for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not compiled for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not compiled for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not compiled for this reason.

Section 13 - Disposal Considerations**Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Inventory		
Component	CAS	TSCA
Ammonium sulfate	7783-20-2	Yes
Biuret	108-19-0	Yes
Ethylene glycol	107-21-1	Yes
N-(n-buryl)-thiophosphoric triamide	94317-64-3	Yes
Phosphoric acid, ammonium salt (1:2)	7783-28-0	Yes
Urea	57-13-6	Yes
Urea, reaction products with formaldehyde	68611-64-3	Yes

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	5000 lb final RQ; 2270 kg final RQ
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed

• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		1.0 % de minimis concentration (10% of total aqueous Ammonia is reportable under this listing)
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	1.0 % de minimis concentration
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	developmental toxicity, 6/19/2015 (ingested)
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed

• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	8700 µg/day MADL (oral; ingested)
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Biuret	108-19-0	Not Listed
• Phosphoric acid, ammonium salt (1:2)	7783-28-0	Not Listed
• Phosphoric acid, ammonium salt (1:2) as Aqueous ammonia from water dissociable ammonium salts and other sources		Not Listed
• Ammonium sulfate	7783-20-2	Not Listed
• Urea, reaction products with formaldehyde	68611-64-3	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Urea	57-13-6	Not Listed
• N-(n-buryl)-thiophosphoric triamide	94317-64-3	Not Listed

Other Information

- This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

Section 16 - Other Information

Revision Date

- 25/April/2019

Preparation Date

- 21/January/2019

Disclaimer/Statement of Liability

- The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet (SDS) and was prepared pursuant to

Government regulation(s) that identify specific types of information to be provided. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product. Purchasers and users assume all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Purchasers and users of the product specifically should advise all of their employees, agents, contractors and customers who will use the product of this SDS.

Key to abbreviations

NDA = No Data Available