TRADEMARK NITROGEN

SAFETY DATA SHEET

PRILLED UREA

Section 1 – Identification

Product	Urea - Prilled (Dry urea, carbamide, carbonyl diamide)	Recommended Use: Used as a fertilizer and dietary supplement for livestock.
Address	1216 Old Hopewell Road, Tampa, FL 33619	
Phone	(813) 626-1181 (800) 452-3107	
24 Hour Emergency Contact	Chemtrec U.S.A. (800) 424-9300	

Section 2 – Hazard Identification

GHS07

Signal Word: **WARNING**

Hazard Statements:

H303 May be harmful if swallowed
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Precautionary Statements:

P101 If medical advice is needed, have product container or label on hand.
P102 Keep out of reach of children
P103 Read label before use
P202 Do not handle until all safety precautions have been read and understood
P210 Keep away from open flames. - No Smoking
P211 Do not spray on an open flame or other ignition source
P220 Keep / Store away from combustible materials
P261 Avoid breathing dust
P264 Wash hands thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well ventilated area
P273 Avoid release to the environment
P280 Wear eye protection, protective clothing, protective gloves
P311 Call a POISON CENTER or doctor / physician
P331 Do NOT induce vomiting (unless instructed by poison center or doctor)
P302+P352 IF ON SKIN: Wash with plenty of water
P304+P340 IF INHALED: Remove victim to fresh air and
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313 If skin irritation occurs: Get medical advice / attention
P337+P313 If eye irritation persists: Get medical advice / attention
P362 Take off contaminated clothing
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up
P501 Dispose of contents / container according to local, regional, national, and international regulations

Section 3 – Composition

Ingredients	Component	CAS. No.	Percent by Weight
	Urea ($CO(NH_2)_2$)	57-13-6	97.7%
	Biuret ($H_2NC(O)NHC(O)NH_2$)	108-19-0	< 0.5%
	Conditioner (Methlenediurea)		1.8%

Section 4 – First Aid Measures

Inhalation	If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Seek medical attention if necessary.
Skin Contact	If on skin (or hair): Take off all contaminated clothing. Rinse skin with soap and water for at least 15 minutes.
Eye Contact	If in eyes: Immediately flush eyes with water. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention as necessary.
Ingestion	If swallowed: Call a poison control center or doctor immediately for treatment advice. Drink small amounts of water if able. Do NOT induce vomiting unless instructed by poison control center or doctor. Never give anything by mouth to an unconscious person.
Acute Health Hazards	Ingestion may cause irritation to the digestive track including nausea, vomiting and diarrhea. May also depress the central nervous system (feelings of drowsiness).
Chronic Health Hazards	No known long term effects.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Techniques & Equipment	This product is non-flammable however will burn at high temperatures. Use extinguishing media suitable for surrounding material.
Chemical Hazards From Fire	Thermal decomposition occurs above 270°F and will produce carbon dioxide, nitrogen oxides and ammonia.
Special Fire Fighting Procedures	Evacuate non-essential personnel from the area to prevent exposure to fire, smoke, fumes or products of combustion. Use extinguishing agent most appropriate to surrounding materials. Keep material wet to prevent nitrate salts from forming as they can support combustion or become explosive.
NFPA Rating	Health - 1 (Slight) Fire - 0 (Least) Reactivity - 0 (Low)
Other	Do not allow run-off from fire fighting to enter drains or water courses.

Section 6 – Accidental Release Measure

Personal Precautions	Avoid splashing. Prevent exposure to spilled material with the use of proper PPE.
Protective Equipment	PPE should include chemical resistant gloves, goggles, face shield and level C protective suit.
Contain-ment	Control the flow of product using dikes of soil, sand bags or other commercially available inert sorbent socks or booms.
In Case of Spill	Absorb product with inert absorbent. Avoid splashing or spraying. Contain and pick up spill in diked area. Prevent discharge to sewers or water ways. If uncontaminated, recover and re-use.

Section 7 – Safe Handling & Storage

Precautions for Safe Handling & Storage	**Storage:** Store in a well ventilated cool, dry place. Containers should be kept closed and labeled properly. **Handling:** Avoid contact with skin and eyes. Avoid breathing dust. Wear recommended personal protective equipment. Avoid creating or spreading dust. Handle in accordance with good industrial hygiene and safety procedures.
Incompatible Materials	Avoid containers, pipings or fittings made of brass, bronze or other copper bearing alloys or galvanized matals. Nitric acid, hypochlorites, nitrosyl perchlorate, gallium perchlorate and phosphorus pentachloride.

Section 8 – Exposure Controls / Personal Protection

Exposure Limits	Component	Permissible Exposure Limit	Threshold Limit Value	Short Term Exposure Limit	Immediately Dangerous to Life or Health
	Urea ($CO(NH_2)_2$)	Not Established	Not Established	Not Established	Not Established
	Biuret ($H_2NC(O)NHC(O)NH_2$)	Not Established	Not Established	Not Established	Not Established
	Conditioner (Methlenediurea)	Not Established	Not Established	Not Established	Not Established

Engineering Controls	Use in a well ventillated area. Eye wash stations and showers should be readily available.	
Personal Protective Equipment	Eyes	Chemical safety goggles or face sheild.
	Hands	Impervious chemical protective gloves.
	Respiratory	None required under normal conditions. NIOSH approved respirator if there is a mist or dust of the product.
	Protective Clothing	Chemical resistant clothing and rubber boots


Gloves


Goggles


Protective Clothing


Respiratory Protection

Section 9 – Physical & Chemical Properties

Appearance and Odor	White solid granular shape with slight ammonia smell	Specific Gravity	1.34 @ 60°F (15.5°C)
Boiling Point	Decomposes above 275°F (135°C)	Molecular Weight	60.056
Freezing Point	No Data Available	Solubility in Water	1,193 g/l @ 25°C
Vapor Pressure	80 Pa @ 20°C	Evaporative Rate	No Data Available
Weight per Gallon	No Data Available	pH	6.5 - 8.5
Flash Point	Not flammable	Salt-Out Temp	No Data Available
Flammability Limits	No Data Available	Auto Ignition Temp	No Data Available
UEL	N/A	LEL	N/A

Section 10 – Stability & Reactivity

Reactivity	Product is not reactive under normal conditions.
Stability	Product is stable under normal conditions.
Hazardous Reactions	Hazardous plymerization will not occur
Conditions to Avoid	Do not allow product to evaporate to dryness. Elevated temperatures may cause container to rupture. Avoid contact with strong acids and strong oxidizers.
Incompatible Materials	Avoid contact with strong oxidizers, strong acids, nitrates and chlorates. Nitric acid, hypochlorites, nitrosyl perchlorate, gallium perchlorate and phosphorus pentachloride. Reacts with sodium or calcium hypochlorite to form explosive nitrogen trichloride.
Hazardous Decomposition Products	Extreme heat may cause decomposition to ammonia, carbon dioxide and nitrogen oxides.

Section 11 – Toxicology Information

Routes of Exposure	Inhalation, ingestion or skin/eye contact			
Symptoms and Signs of Exposure	Eyes	May cause eye irritation. May result in redness, tearing or blurred vision.		
	Skin	Mild irritant. May result in redness and itching.		
	Inhalation	Inhalation of mist may cause irritation to the respiratory tract.		
	Ingestion	General irritation of the respiratory tract.		
Long Term Effects	Prolonged skin contact may result in dermatitis (inflammation and redness of skin). Repeated ingestion of small amounts may cause weakness, depression, headaches, neurological effects and mental impairment. No limits have been set for this material.			
Carcinogen	The International Agency for Research on Cancer has not classified urea for its carcinogenic potential (IARC 1987).			
California Prop 65	Not Listed			
Toxicity	Oral	Rat	LD_{50}	>10,000 ppm
	Oral	Cattle - Male	TDLo	200 mg(N) / kg

Section 12 – Ecological Information

Water	Low concentrations are not toxic to fish or other aquatic organisms. High concentrations may encourage excessive algae growth and eurtophication.
Ecotoxicity	Non-toxic to aquatic organisms as defined by USEPA.
Persistence and Degradability	Ultimately biodegradable, Non-toxic to aquatic organisms as defined by USEPA.
Bioaccumulat-ive Potential	No Data Available
Mobility in Soil	When released to soil, urea will hydrolyze into ammonium in a matter of days to several weeks.
Other Adverse Effects	No additional information available.

Section 13 – Disposal Considerations

Waste	Urea is not considered a hazardous waste. Disposal must be done in accordance with local, state and federal environmental regulations. Place waste in an appropriate container with correct labeling.

Section 14 – Transport Information

US DOT

This material is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation

UN ID Number	N/A
Proper Shipping Name	N/A
Hazard Class	N/A
Packing Group	N/A
US DOT Label	N/A
Authorized Packaging	N/A

IMDG

This material is not classified as a dangerous good per the IMDG code.

UN ID Number	N/A
Proper Shipping Name	N/A
Hazard Class	N/A
Packing Group	N/A
US DOT Label	N/A
Authorized Packaging	N/A

IATA

This material is not classified as a dangerous good per the IATA code.

UN ID Number	N/A
Proper Shipping Name	N/A
Hazard Class	N/A
Packing Group	N/A
US DOT Label	N/A
Authorized Packaging	N/A

Section 15 – Regulatory Information

United States - SARA Hazard Category

This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following catagories:

Fire - no | Pressure - no | Reactive - no | Acute - yes | Chronic - no

SARA Title III Information

This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Chemical	CAS No.	CERCLA RQ (lbs.)	SARA Reporting		
			302	304	313
Urea ($CO(NH_2)_2$)	57-13-6	N/A	N/A	N/A	N/A

CERCLA / Superfund, 40 CFR Part 117, 302

If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National Response Center, Washington DC (800-424-8802) is required.

TSCA

Urea is listed on the Active TSCA Inventory List.

Section 16 – Other Information

Date of Issue	2/9/2021
Date of Revision	February 2021: SDS Formatting updated. September 2014: updated sections 9, 11, 15. May 2014: TSCA statement revised. February 2013: revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet GHS Standards.

Disclaimer

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