SAFETY DATA SHEET

Verdant NG 10 | Date Prepared: 6/1/2026 | Replaces: All Previous

SECTION 1. IDENTIFICATION

Product Name:	Verdant NG 10
Synonyms:	None
Use:	Agricultural, Liquid Fertilizer
Manufacturer:	Chemical Dynamics, Inc.
	4206 Business Lane
	Plant City FL 33566
Phone:	813-752-4950
Chemtrec (Emergency) Phone:	800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Pictogram	Signal Word	Hazard Class	Hazard Category	Hazard Statement
	**WARNING**	Skin Irritant Eye Irritant	Cat 2 Cat 2A	Causes skin irritation Causes serious eye irritation

Precautionary Statements:	**Prevention:** Wear protective gloves, chemical splash proof goggles and face protection. Wash thoroughly after handling. **Response:** <u>If on skin</u>: wash with plenty of water. If skin irritation occurs, get medical attention. Take off contaminated clothing and wash it before reuse. <u>If in eyes</u>: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention. **Disposal**: Dispose of contents/containers in accordance with local/regional/national regulations (See Section 13 of SDS). Containers may be triple rinsed and offered for recycling.

SECTION 3. COMPOSITION

Material	CAS #	EINECS #	%WT
Ammonium Nitrate	6484-52-2	229-347-8	21%
Urea	57-13-6	200-315-5	18%
Triazone	7098-14-8	230-406-5	Proprietary Blend of materials not classified as hazardous or are below de minimus classification limits
Manganese Glucoheptonate	12565-60-5	Not Assigned	
Iron Glucoheptonate	25126-38-9	Not Assigned	
Magnesium Glucoheptonate	68475-44-5	270-642-6	
Water	7732-18-5	231-791-2	

See product label for guaranteed analysis.

SECTION 4. FIRST AID MEASURES	
General:	In case of persisting adverse effects consult a physician.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person.
Skin Contact:	Remove contaminated clothing. Wash with soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention for any breathing difficulty.
Eye Contact:	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Acute Exposure Symptoms:	Irritation to eyes, skin and respiratory tract. If a large quantity has been ingested: Gastrointestinal disturbances such as abdominal cramps, vomiting, diarrhea, and weakness. High levels of nitrates may reduce the bloods ability to transport oxygen causing headache, fatigue, dizziness and blue lips and skin (methemoglobinemia). Symptoms may be delayed.
Chronic Exposure Symptoms:	Overexposure to this material may result in methemoglobinemia. Methemoglobinemia decreases the blood's ability to carry oxygen and results in symptoms such as dizziness, drowsiness, headache, shortness of breath, blue skin and lips, rapid heart rate, unconsciousness, and possibly death.

SECTION 5. FIRE FIGHTING MEASURES	
Extinguishing Media:	Water spray is recommended. Use extinguishing agent most appropriate to surrounding materials. Cool containers with water spray to avoid rupture due to thermal expansion.
Specific Hazards:	This product is an aqueous mixture which will not burn. Under fire conditions, this product may behave as an oxidizer if evaporated to dryness. Contact with oxidizable substances may result in ignition. Violent combustion or explosion when involved in fire can occur. This material can decompose and produce acrid vapors, cyanuric acid, oxides of carbon, nitrogen and ammonia. Use water spray to keep containers cool.
Protective Equipment and Precautions for Fire-Fighters:	Wear self-contained breathing apparatus (SCBA) and full protective gear. Avoid inhaling combustion products. Fire run-off should be contained to prevent possible environmental damage.
NFPA Rating:	Health: 1, Fire: 0, Reactivity: 0

SECTION 6. ACCIDENTAL RELEASE MEASURES	
Precautions:	Isolate area. Keep unnecessary personnel away. Avoid splashing or spraying.
Protective Equipment:	Impervious gloves (rubber, neoprene or nitrile), Long sleeved clothing. Side-shielded safety glasses or chemical splash-proof goggles, face shield Chemical resistant apron and/or rubber boots may be needed.
Containment:	Stop flow of material if safe to do so. Dike area with diatomaceous earth or sand and maximize recovery. Do not absorb in saw dust.
Clean Up:	Pump into a suitable tank or absorb with diatomaceous earth or sand. Sweep up and place into suitable containers for agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations (See Section 13 of SDS).

SECTION 7. HANDLING AND STORAGE	
Precautions for safe handling:	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Do not eat, drink or use tobacco products when handling this material. Apply product in open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources. Launder work clothes frequently and separate from other laundry.
Conditions for safe storage:	Store in a well-ventilated, cool, dry place, away from direct sunlight, sources of intense heat, or where freezing is possible. Do not store on wooden floor. Keep containers tightly closed when not in use. Do not let product go below 42°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Avoid welding on pipes or tanks which have contained this product until they have been thoroughly washed out with water. Residual Ammonium Nitrate may explode under conditions of confinement and high temperature. Avoid containers, piping, or fittings made of brass, bronze, or other copper containing alloys or galvanized metals. Do not run pumps with the discharge or suction valves closed; pump must be on circulation. If material is evaporated to dryness, special hazards are involved and special firefighting precautions and methods are recommended. DO NOT ALLOW PRODUCT TO DRY.
Incompatibilities:	Flammable and combustible materials. Keep away from intense heat or fire. Contact with alkaline materials can produce ammonia. Corrosive to brass, bronze, copper, aluminum and their alloys.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION			
Component Exposure Limits:	Ammonium Nitrate, Triazone	Not Established	PEL, OSHA
		Not Established	TWA, ACGIH
		Not Established	IDLH, NIOSH
		Not Established	REL, NIOSH
		Not Established	STEL, NIOSH
	Urea	Not Established	PEL, OSHA
		10 mg/m^3	TLV, ACGIH
		Not Established	IDLH, NIOSH
		Not Established	REL, NIOSH
		Not Established	STEL, NIOSH

None Established by OSHA. No TLV (Threshold Limit Value) established by ACGIH for Urea Ammonium Nitrate Solution.	
Engineering Controls:	Provide local exhaust ventilation and wash facilities.
Personal Protective Equipment:	Eyes: chemical splash-proof goggles. Do not wear contact lenses. Skin: Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing. Chemically resistant apron and face shield are recommended. Respiratory: None required for ambient air concentrations (i.e. in the open under normal agronomic conditions). Respiratory protection may be required in the event of a spill in an enclosed area or under misty conditions due to agitation or spraying. Use a NIOSH/MSHA approved mist respirator.
General:	Eye wash stations and safety shower required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark, Opaque liquid		
Odor:	Slight sweet odor	**UEL / LEL:**	Not Applicable
Odor Threshold:	Not Applicable	**Vapor Pressure:**	Similar to water
pH:	5.5 to 7	**Density:**	1.24 to 1.26 g/cm^3
Melting/Freezing Point:	<0°C (32°F)	**Solubility:**	Water
Boiling Point:	>100°C (212°F)	**Log$_{ow}$:**	Not Available
Flash Point:	Not Applicable	**Auto Ignition Temp:**	Not Applicable
Evaporation Rate:	Similar to water	**Decomposition Temp:**	Not Available
Flammability (Solid/Gas):	Not Applicable	**Viscosity**	Not Available

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Product may act as an oxidizer when evaporated to dryness
Chemical Stability:	Stable under normal ambient conditions. Do not let product dry.
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	Avoid welding on pipes or tanks which have contained this product until they have been thoroughly washed out with water. Avoid containers, piping, or fittings made of brass, bronze, or other copper containing alloys or galvanized metals. Avoid exposure to extreme temperatures, contact with incompatible chemicals and all contact with combustible materials. Elevated temperatures may cause containers to rupture.
Incompatible Materials:	Strong oxidants, (e.g. Chlorine, Hypochlorites). Easily oxidizable materials. Water-reactive materials.
Hazardous Decomposition Products:	Thermal decomposition can yield ammonia, oxides of nitrogen and carbon, cyanuric acid.

SECTION 11. TOXILOGICAL INFORMATION	
Acute Toxicity:	Ammonium Nitrate, LD50 oral (rat): 2800-4500 mg/kg (as dry material) Ammonium Nitrate, LC50 Inhalation (rat): 4-h: >88.8 mg/L. Urea, LD50 oral (rat): 14300-15000 mg/kg, (cattle): 510 mg/kg (as dry material) Triazone, LD50 oral (rat): > 2000 mg/kg
Likely Routes of Exposure:	Inhalation, ingestion, respiratory system or skin absorption
Symptoms and Signs of Exposure:	Eyes: Causes irritation. May result in redness, tearing and blurred vision. Skin: Causes irritation to the skin. May result in redness, itching and pain. Ingestion: Irritating to gastrointestinal tract. Abdominal pain, burning sensation, upset stomach, abdominal cramps, vomiting, diarrhea and weakness may occur. Inhalation: May cause irritation to the respiratory tract.
Chronic Effects:	None known
Carcinogenetic:	None of this product's components are listed by ACGIH, OSHA, NIOSH or NTP as carcinogenic. IARC: 2A Probably carcinogenic to humans (Nitrates (ingested) under conditions that result in endogenous nitrosation).
Teratogenicity:	Ammonium Nitrate: Not teratogenic to rats at 57 mg/kg bw (NOAEL > 57 mg/kg/day).
Bacterial Genetic Toxicity **In-Vitro: Gene Mutation:**	Urea: Bacterial Genetic Toxicity in vitro: (Salmonella typhimurium) – Bacterial reverse mutation assay- Negative; Chinese Hamster -- Chromosomal aberration test – Positive (very high dose); Mouse – Positive (very high dose). Genetic Toxicity in vivo: Mouse – Bone marrow cytogenetic test – Positive (extremely high dose)
Reproductive Toxicity:	Urea: No toxic effects on mouse gonads up to 6,750-mg/kg day. No toxic effects on rat gonads up to 2,250-mg/kg day. Developmental Toxicity / Teratogenicity. Not teratogenic.
Other Effects on Humans:	Symptoms may include excessive action of the kidneys and perhaps bowels Ammonium Nitrate: No other effects known. Urea: Despite extensive medical use, no significant side effects on humans have been noted.

SECTION 12. ECOLOGICAL INFORMATION	
Ecotoxicity:	Aquatic toxicity considerations indicate this product is of a low order of toxicity to the species tested. Since this product is a fertilizer; it may promote eutrophication in waterways. Non-toxic to aquatic organisms as defined by USEPA.
Other Adverse Effects:	Not harmful to ozone layer
Ecotoxicity, Acute, Invertebrates:	Ammonium Nitrate: (Daphnia magna) EC50 = 555 mg/L. Urea: (Daphnia magna) 24 - h EC50: > 10,000 mg/L . LC50 – Poecilia retiulata (guppy): 17,500 mg/L for 96 hrs Triazone: Not Available
Ecotoxicity, Acute, Aquatic Plants	Urea: (Scenedesmus quadricauda) 192 hr cell multiplication inhibition test – TT> 10,000 mg/L.

SECTION 13. DISPOSAL CONSIDERATIONS	
General Information:	As packaged, this product is a D001 ignitable waste per 40 CFR 261; applicable to wastes containing this product.
Disposal Instructions:	Agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations. Containers may be triple rinsed and offered for recycling.

SECTION 14. TRANSPORT INFORMATION	
This material is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation	
Proper Shipping Name:	Not Applicable
Hazard Class:	Not Applicable
UN Identification #:	Not Applicable
Packing Group:	Not Applicable
Required Label(s):	Not Applicable
Emergency Response Guide Number:	Not Applicable
Notes:	This product (Nitrogen Fertilizer Solution) is classified by the USCG as an NLS under 33 CFR 154 per reference 46 CFR 153 (and Marpol)

SECTION 15. REGULATORY INFORMATION	
TSCA Inventory Status	All intentional ingredients listed on the TSCA inventory.
DSCL (EEC) Status	All intentional ingredients listed on the DSCL inventory.
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 categories: Fire – No, Pressure – No, Acute – Yes, Chronic – No, Reactive – 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:
Ammonium Nitrate (6484-52-2)	CERCLA RQ (pounds): No SARA Reporting, 302: No SARA Reporting, 304: No SARA Reporting, 313: Yes 1.0% de minimus concentration (N511, Water Dissociable Nitrate)
Federal Insecticide, Fungicide, and Rodenticide Act	This product is not a pesticide.
State Regulations:	Other state regulations may apply. Check individual state requirements.
Ammonium Nitrate (6484-52-2)	California - Toxic Air Contaminant List (AB 1807, AB 2728) Delaware - Accidental Release Prevention Regulations - Sufficient Quantities Delaware - Pollutant Discharge Requirements - Reportable Quantities Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Conc. - Reporting Category 1 Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Conc. - Reporting Category 2 Massachusetts - Oil & Hazardous Material List - Reportable Quantity Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1 Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2 Massachusetts - Right To Know List New Jersey - Right to Know Hazardous Substance List New Jersey - Special Health Hazards Substances List Pennsylvania - RTK (Right to Know) - Environmental Hazard List Pennsylvania - RTK (Right to Know) List Texas - Effects Screening Levels - Long Term Texas - Effects Screening Levels - Short Term
Urea (57-13-6)	Minnesota - Hazardous Substance List Texas - Effects Screening Levels - Long Term Texas - Effects Screening Levels - Short Term

SECTION 16. OTHER INFORMATION

Date of Revision:	6/1/2026, revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards.
Disclaimer:	The information contained in this SDS refers only to the specific material designated and does not relate to any process or use with any other materials. This information is based on data believed to be accurate and reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Because safety standards and regulations are subject to change and because Chemical Dynamics, Inc. has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. No warranty, expressed or implied, and no liability is assumed by Chemical Dynamics, Inc. in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.