

MATERIAL SAFETY DATA SHEET

SECTION I. Chemical Product and Company Identification	
Product Name/ Trade Name: Granulated Fertilizer: 17-9-7	
SYNONYM: 17-9-7 NPK Fertilizer	MSDS NUMBER: 1026
CHEMICAL NAME: Not applicable; a complex co-granulated mixture of essential plant nutrients.	REVISION NUMBER: 1.1
CHEMICAL FAMILY: Ammonium salt.	MSDS prepared by the Environmental Health and Safety Department:
CHEMICAL FORMULA: Not applicable. A co-granulated inorganic material.	24 HR EMERGENCY TELEPHONE NUMBER Transportation: 1-800-792-8311 Medical: 1-888-670-8123
MATERIAL USES: Agricultural industry: Fertilizer.	
MANUFACTURER	SUPPLIER
United Suppliers, Inc. 1557 County Road 1400 N P.O. Box 216 Henry, IL 61537	United Suppliers, Inc. 1557 County Road 1400 N P.O. Box 216 Henry, IL 61537

SECTION II. Hazardous Ingredients								
Exposure Limits (ACGIH)								
NAME	CAS #	TLV-TWA mg/m ³	TLV-TWA ppm	STEL mg/m ³	STEL ppm	CEIL mg/m ³	CEIL ppm	% by weight
No regulated components								
TOXICOLOGICAL DATA ON INGREDIENTS		Not applicable. This product is not considered hazardous according to WHMIS (Canada), HSC (United States) and DSCL (Europe.).						

SECTION III. Hazards Identification.	
POTENTIAL HEALTH EFFECTS ACUTE	This product may irritate eyes and skin upon prolonged or repeated contact from mechanical action and the drying effect of mineral salts. Over-exposure by inhalation may cause respiratory tract irritation. Ingestion of this substance may produce irritation of the gastrointestinal tract, characterized by burning and diarrhea.
POTENTIAL HEALTH EFFECTS CHRONIC	CARCINOGENIC EFFECTS: NONE by ACGIH, EPA, IARC, NTP, OSHA. MUTAGENIC EFFECTS: NONE by ACGIH, EPA, IARC, NTP, OSHA. TERATOGENIC EFFECTS: NONE by ACGIH, EPA, IARC, NTP, OSHA. There is no known effects from chronic exposure to this product.

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SECTION IV. First Aid Measures	
EYE CONTACT	May cause eye irritation. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Obtain medical attention if irritation persists.
MINOR SKIN CONTACT	May cause skin irritation due to the drying action of mineral salts. Wash contaminated skin with soap and water. Cover irritated skin with an emollient. If irritation persists, obtain medical attention. Wash contaminated clothing before reusing.
EXTENSIVE SKIN CONTACT	No additional information
MINOR INHALATION	Repeated or prolonged inhalation of dust may lead to respiratory irritation. Loosen tight clothing around the individual's neck and waist. Allow the person to rest in a well ventilated area. Obtain medical attention if irritation persists.
SEVERE INHALATION	Over-exposure by inhalation may cause respiratory irritation. In emergency situations use proper respiratory protection to evacuate the victim to a safe area as soon as possible. Loosen tight clothing around the victim's neck and waist. Allow the victim to rest in a well ventilated area. Oxygen may be administered if breathing is difficult. If the victim is not breathing, perform artificial respiration. Obtain immediate medical attention.
SLIGHT INGESTION	Remove dentures if any. If conscious, have the person drink several glasses of water or milk and induce vomiting. Never give anything by mouth to an unconscious person. Lower the head so that the vomit will not reenter the mouth or throat. Obtain medical attention.
EXTENSIVE INGESTION	No additional information.

SECTION V. Fire and Explosion Data	
THE PRODUCT IS	Non-flammable.
AUTOR-IGNITION TEMPERATURE	Not applicable
FLASH POINT	Not applicable
FLAMMABILITY LIMITS	Not applicable
PRODUCTS OF COMBUSTION	Material will not burn. Undergoes thermal decomposition at elevated temperatures to release toxic and combustible gases: ammonia, nitrogen oxides, sulfur oxides, phosphorous oxides.
FIRE HAZARD IN THE PRESENCE OF VARIOUS SUBSTANCES	Not applicable
EXPLOSION HAZARD IN THE PRESENCE OF VARIOUS SUBSTANCES	This product is no-explosive
FIRE FIGHTING MEDIA AND INSTRUCTIONS	Material will not burn. Undergoes thermal decomposition at elevated temperatures to release toxic and combustible gases. Use extinguishing media suitable for surrounding materials.
SPECIAL REMARKS ON FIRE HAZARDS	Non combustible. Flammable/toxic gases will form at elevated temperatures (.190 °C) by thermal decomposition (ammonia, sulfur oxides, nitrogen oxides, phosphorous oxides). A self contained breathing apparatus should be used to avoid inhalation of toxic fumes.
SPECIAL REMARKS ON EXPLOSION HAZARDS	No additional remarks.

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SECTION VI. Accidental Release Measures	
SMALL SPILL	Use appropriate tools to put the spilled solid in a suitable container for intended use or disposal
LARGE SPILL	Prevent additional discharge of materials, if possible to do so without hazard. Prevent spills from entering sewers, watercourses, wells, etc. Product will promote algae growth and may degrade water quality and taste. Notify downstream water users. Sulfate in potable drinking water should be maintained below 500 mg/L. Reclaiming material may not be viable. Recover and place material in suitable containers for recycle, reuse, or disposal. Ensure disposal is in compliance with government requirements and local regulations.

SECTION VII. Handling and Storage.	
PRECAUTIONS	Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water. Do not breathe dust. Keep away from food, drink and animal feed. Avoid contact with incompatible substances. Keep out of reach of children.
STORAGE	Store in a dry, cool and well ventilated area.

SECTION VIII. Exposure Controls/Personal Protection	
ENGINEERING CONTROLS	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If uses operations generate dust, use ventilation to keep exposure to airborne contaminants below the exposure limits.
PERSONAL PROTECTION	The selection of personal protection equipment varies, depending upon conditions of use. Where skin and eye contact may occur as a result of brief periodic exposures, wear long sleeve clothing, coveralls, leather gloves, and safety glasses with side shields.
PERSONAL PROTECTION IN CASE OF LARGE RELEASE	Wear NIOSH approved dust respirator if engineering, work practice or other control measures are not adequate to prevent overexposure. Where skin and eye contact may occur as a result of prolonged or repeated exposures, wear long sleeved clothing, coveralls, leather gloves, and safety glasses with side shields
EXPOSURE LIMITS	TLV-TWA 10mg/m ³ as inhalable dust Ref: ACGIH 1997. Not otherwise classified (nuisance dust). Consult authorities for local acceptable exposure limits.

SECTION IX. Physical and Chemical Properties			
PHYSICAL STATE AND APPEARANCE	Solid (Granular solid)		
MOLECULAR WEIGHT	Not available	COLOR	Grey
pH (10% Soln/Water)	5.6	ODOR	Odorless
BOILING POINT	Decomposes	ODOR THRESHOLD	17 PPM (Ammonia)

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SECTION IX. (Cont.) Physical and Chemical Properties			
MELTING POINT	155 °C (311 °F)	TASTE	Acrid (Slight)
CRITICAL TEMPERATURE	Not available	VOLATILITY	Not applicable
SPECIFIC GRAVITY g/cc	1.091 (Water =1)	SOLUBILITY	Easily soluble in hot water. Soluble in cold water.
BULK DENSITY Lbs/ft³	56 lbs/ft ³	DISPERSION PROPERTIES	See solubility in water
VAPOR PRESSURE	Not applicable	WATER/OIL DIST COEFF.	Not available
VAPOR DESITY	Not applicable		

SECTION X. Stability and Reactivity Data	
STABILITY	The product is stable.
INSTABILITY TEMPERATURE	Not available
CONDITIONS OF INSTABILITY	No additional remarks.
INCOMPATABILITY WITH VARIOUS SUBSTANCES	Slightly reactive to reactive with oxidizing agents. Very slightly to slightly reactive with metals, alkalis, moisture.
CORROSIVITY	Highly corrosive in presence of aluminum, zinc, and copper. Slightly corrosive to steel, and 304 stainless steel. Non-corrosive to stainless steel.
SPECIAL REMARKS ON CORROSIVE ACIDS.	Avoid contact with moisture. Slow hydrolysis will produce corrosive acids.
SPECIAL REMARKS ON CORROSIVITY	Incompatible with copper alloys. Corrosive to brass. Corrosive to ferrous metals and alloys.

SECTION XI. Toxicological Information	
SIGNIFICANT ROUTS OF EXPOSURE	Ingestion. Inhalation
TOXICITY TO ANIMALS	Acute oral toxicity (LD 50):>3000 mg/lk (Rat)
SPECIAL REMARKS ON TOXICITY TO ANIMALS	Very low toxicity for humans or animals. Will release ammonium ions. Ammonia is a toxic hazard to fish. May be harmful to livestock and wildlife if ingested. Clean up all spilled material, especially where bulk fertilizer loading of equipment occurs.
OTHER EFFECTS ON HUMANS	Our data base contains no additional remark on the toxicity of this product.
SPECIAL REMARKS ON CHRONIC EFFECTSON HUMANS	No additional remarks
SPECIAL REMARKS ON OTHER EFFECTS ON HUMANS	No additional remarks.

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SECTION XII. Ecological Information	
ECOTOXICITY	Non-persistent. Non cumulative when applied using normal agricultural practices. Low toxicity for humans or animals under normal conditions of use. May be harmful to livestock and wildlife if ingested. Clean up all spilled material, especially where bulk fertilizer loading of equipment occurs to prevent animal exposure.
ECOTOXICITY	Aquatic/Marine Toxicity: Will release ammonium ions. Ammonia is a toxic hazard to fish. Avoid spills or release to watercourses. Will dispense with current. Release to watercourses may cause effects down stream from the point of release. U.S.D.O.T.: This material not listed as a Marine pollutant.
BOD and COD	Not available
PRODUCTS OF DEGRADATION	Nitrogen oxides (NO, NO2...), Sulfur oxides (SO2, SO3,...) phosphates
TOXICITY OF THE PRODUCTS OF DEGRADATION	The products of biodegradation are not harmful under normal conditions of slow metabolic release.
SPECIAL REMARKS ON THE PRODUCTS OF DEGRADATION	Product will promote algae growth and may degrade water quality and taste. Notify downstream water users. Sulfates in potable drinking water should be maintained below 500 mg/L. Will dissolve and disperse in water. Reclaiming material may not be viable.

SECTION XIII. Disposal Consideration	
Waste Disposal or Recycling	Recycle to process, if possible. Ensure disposal is in compliance with government requirements and local regulations. Consult your local or regional authorities

SECTION XIV. Transport Information	
DOT/TDG CLASSIFICATION	Not controlled under TDG (Canada) or D.O.T. (U.S.A.)
PIN	Not applicable (PIN or PG)
SPECIAL PROVISIONS FOR TRANSPORT	Not applicable

SECTION XV. Other Regulatory Information	
OTHER REGULATIONS	CANADIAN ENVIRONMENTAL PROTECTON ACT (CEPA): This product is on the Domestic Substances List (DSL), and is acceptable for use under the provisions of CEPA
OTHER CLASSIFICATIONS	HCS (U.S.A) Not controlled under the HCS (United States). DSCL (EEC) Not controlled under the DSCL (Europe).
NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A)	Hazards presented under acute emergency conditions only

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SECTION XVI. Other Information	
REFERENCES	<ul style="list-style-type: none"> -29 CFR Part 1910 -40 CFR Parts 300-399 -49 CFR Parts 1-199 -Canadian Centre for Occupational Health and Safety CInfo Disk. -American Conference of Governmental Industrial Hygienists, Threshold Limit Values for Chemical Substances, 1997 -Corrosion Data Survey, Sixth Edition, 1985 National Association of Corrosion Engineers. -Fire Protection Guide to Hazardous Materials, (NFPA49, 325M, 491M, and 704), National Fire Protection Association, 10th ED, 1991. -TOMES Plus®, Vol 36, January 1998, Micromedex Inc.
OTHER SPECIAL CONSIDERATIONS	No additional information
FOR FURTHER SAFETY, HEALTH, OR ENVIRONMENTAL INFORMATION ON THIS PRODUCT, CONTACT	<p>United Suppliers, Inc. Environmental, Health and Safety Department Telephone (309)-364-2361 or Fax (309)364-2981</p>
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