1. Product and Company Identification

Product Code:	902561	
Product Name:	Merit 0.20% 21-0-3 25%XCU	
Trade Name:	Fertilizer with Pesticide	
Company Name:	Turf Care Supply Corp. 50 Pearl Road Suite 200 Brunswick, OH 44212	**Phone Number:** 1 (330)558-0910
Web site address:	www.turfcaresupply.com	
Email address:	regaffairs@tcscusa.com	
Emergency Contact:	PERS	1 (800)633-8253
Information:	Turf Care Supply Corp.	1 (330)558-0910

2. Hazards Identification

Acute Toxicity: Oral, Category 4
Acute Toxicity: Skin, Category 5
Carcinogenicity, Category 1A

GHS Signal Word:	**Danger**
GHS Hazard Phrases:	H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. H373 - May cause damage to through prolonged or repeated exposure.
GHS Precaution Phrases:	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
GHS Response Phrases:	No phrases apply.
GHS Storage and Disposal Phrases:	No phrases apply.
Potential Health Effects (Acute and Chronic):	Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated exposure may cause permanent eye damage. Chronic exposure may cause lung damage. Adverse reproductive effects have been reported in animals. Animal studies have reported the development of tumors. Not expected to be a chronic hazard. Effects may be delayed.
Inhalation:	May be harmful if inhaled. Low hazard for normal industrial handling. The toxicological properties of this substance have not been fully investigated. May cause systemic effects. Material may be irritating to mucous membranes and upper respiratory tract.
Skin Contact:	May cause skin irritation. Dust causes mechanical irritation. Low hazard for usual industrial handling.
Eye Contact:	May cause eye irritation. Dust may cause mechanical irritation.
Ingestion:	May be harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Low hazard for normal industrial handling. The toxicological properties of this substance have not been fully investigated. May cause systemic effects.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
1317-65-3	Limestone	46.23 %
57-13-6	Urea	45.67 %
7447-40-7	Potassium chloride	4.774 %
14808-60-7	Quartz	1.541 %
138261-41-3	Imidacloprid	0.200 %

4. First Aid Measures

Emergency and First Aid Procedures:

In Case of Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

In Case of Skin Contact: Get medical aid if irritation develops or persists. In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. Wash off with soap and plenty of water.

In Case of Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Do NOT allow victim to rub eyes or keep eyes closed.

In Case of Ingestion: Get medical aid. Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Signs and Symptoms Of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3); however, crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1) (IARC, Vol. : 68 (1997) (p. 41)). Therefore, amorphous silica should be handled as if possessing the same hazards as the crystalline form.

CHRONIC EXPOSURE - CARCINOGEN.
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. Prolonged inhalation of crystalline silica may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of lung tissue.
Crystalline silica is classified as group 1 "known to be carcinogenic to humans" by IARC and "sufficient evidence" of carcinogenicity by the NTP.
The chronic health risks are associated with respirable particles of 3-4 um over protracted periods of time.

Note to Physician: Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray.

Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible. Decomposes at high temperatures, resulting in toxic and corrosive products. Runoff from fire control or dilution water may cause pollution.

Flammable Properties and Hazards: No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Avoid runoff into storm sewers and ditches which lead to waterways. Do not let this product enter the environment except as directed on product label. Clean up spills immediately, observing precautions in the Protective Equipment section.

Personal precautions.
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Environmental precautions.
Do not let product enter drains.

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

PROCEDURES & PERSONAL PRECAUTIONS.
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

Methods for cleaning up.
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7. Handling and Storage

Precautions To Be Taken in Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling. Use only in a well-ventilated area. Keep container tightly closed. Wash clothing before reuse.

Provide appropriate exhaust ventilation at places where dust is formed.

Precautions To Be Taken in Storing: Store in a cool, dry place. Keep container closed when not in use.

Other Precautions: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by

cleaning equipment or by disposal of wastes, including equipment wash water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Apply this product as specified on the label.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
1317-65-3	Limestone	PEL: 15 (dust); 5 (resp.) mg/m3	No data.	No data.
57-13-6	Urea	No data.	No data.	No data.
7447-40-7	Potassium chloride	PEL: 8825 ppm/(%SiO2+5)	TLV: 0.05 mg/m3 (R)	No data.
14808-60-7	Quartz	PEL: 8825 ppm/(%SiO2+5)	TLV: 0.05 mg/m3 (R)	No data.
138261-41-3	Imidacloprid	PEL: 5 mg/m3	TLV: 10 mg/m3	No data.

Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Protective Gloves: Wear appropriate protective gloves to prevent skin exposure. Wash and dry hands.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States: [ ] Gas [ ] Liquid [X] Solid

Appearance and Odor: Multi-colored. Granular Solid. ammonia-like.

Melting Point: No data.

Boiling Point: No data.

Autoignition Pt: No data.

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Specific Gravity (Water = 1): No data.

Bulk density: ~ 45 - 65 LB/CF

Vapor Pressure (vs. Air or mm Hg): No data.

Vapor Density (vs. Air = 1): No data.

Evaporation Rate: No data.

Solubility in Water: No data.

Percent Volatile:	No data.

10. Stability and Reactivity

Stability:	Unstable [ ] Stable [X]
Conditions To Avoid - Instability:	Incompatible materials, dust generation, heating to decomposition. High temperatures.
Incompatibility - Materials To Avoid:	Strong oxidizing agents, Bases, acids, Aluminum.
Hazardous Decomposition Or Byproducts:	Carbon monoxide, oxides of nitrogen, Carbon dioxide, oxides of sulfur, nitrogen oxides (NOx) and ammonia (NH3). Nitrogen oxides, oxides of phosphorus, Ammonia, Oxides of potassium, Hydrogen chloride, chlorine, irritating and toxic fumes and gases. formed under fire conditions.
Possibility of Hazardous Reactions:	Will occur [ ] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. Toxicological Information

Toxicological Information:

Epidemiology: No information found.
Teratogenicity: No information available.
Tumorigenic effects have been reported in experimental animals.
Teratogenicity: Teratogenic effects have occurred in experimental animals.
Adverse reproductive effects have occurred in experimental animals.
Neurotoxic effects have occurred in experimental animals.
Other Studies: Acute toxicity. No data available.
Reproductive toxicity - no data available.
Inhalation: May cause damage to organs through prolonged or repeated exposure.

CAS# 57-13-6:
Acute toxicity, LD50, Oral, Rat, 8471. MG/KG.
Result:
Tumorigenic: Carcinogenic by RTECS criteria.
Lungs, Thorax, or Respiration: Tumors.
Skin and Appendages: Other: Tumors.
- Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow 113095 Russia, Vol/p/yr: 51(6),8, 1986

Standard Draize Test, Skin, Human, 22.00 MG, 3 D.
Result:
Tumorigenic:Facilitates action of known carcinogens.
- Cutaneous Toxicity, Proceedings of the 3rd Conference, 1976, D, V.A., and P. L, New York, Academic Press, Inc., London United Kingdom, Vol/p/yr: -,127, 1977

CAS# 7447-40-7:
Acute toxicity, LD50, Oral, Rat, 2600. MG/KG.
Result:
Lungs, Thorax, or Respiration:Other changes.
Biochemical:Metabolism (intermediary): Effect on inflammation or mediation of inflammation.
- "Sbornik Vysledku Toxixologickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu

Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,8, 1972

CAS# 138261-41-3:
Acute toxicity, LD50, Oral, Rat, 410.0 MG/KG.
Result:
Lungs, Thorax, or Respiration:Other changes.
Gastrointestinal:Hypermotility, diarrhea.
Kidney, Ureter, Bladder:Urine volume increased.
- Agrochemcicals Japan., Japan Plant Protection Association, 1-43-11, Komagome, Toshima-ku, Tokyo 170 Japan, Vol/p/yr: (63),15, 1993

Acute toxicity, LC50, Inhalation, Rat, > 5323. MG/M3.
Result:
Behavioral: Convulsions or effect on seizure threshold.
- Agrochemcicals Japan., Japan Plant Protection Association, 1-43-11, Komagome, Toshima-ku, Tokyo 170 Japan, Vol/p/yr: (63),15, 1993

Acute toxicity, LD50, Skin, Rat, > 5.000 GM/KG.
Result:
Blood:Other hemolysis with or withot anemia.
- Agrochemcicals Japan., Japan Plant Protection Association, 1-43-11, Komagome, Toshima-ku, Tokyo 170 Japan, Vol/p/yr: (63),15, 1993

Irritation or Corrosion: No data available.

Carcinogenicity/Other Information: CAS# 57-13-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 7783-20-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 1317-65-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 471-34-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 7783-28-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 111-46-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 7778-80-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 7447-40-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 55502-53-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 776-76-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Carcinogenicity.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. IARC Group 2A: Suspected human carcinogenic substance.
Additional studies are needed to determine whether the cell transforming activity of quartz is related to its carcinogenic potential.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information:

This product is extremely toxic to fish and aquatic invertebrates. Run-off may be hazardous to aquatic organisms in water adjacent to treated areas. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.

This product contains a chemical with properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

If released to the atmosphere, urea will degrade rapidly in the vapor-phase by reaction with photochemically produced hydroxyl radicals (half-life of 9.6 hr). If released to soil, urea is hydrolyzed to ammonium through soil urease activity (the basis of its use as a fertilizer). The rate of hydrolysis can be fast (24 hr); however, a number a variables (such as increasing the pellet size of the fertilizer) can decrease the degradation rate from days to weeks.

CAS# 138261-41-3:
LC50, Sheepshead Minnow (Cyprinodon variegatus), juvenile(s), 163.0 PPM, 96 H, Mortality.
Result:
Behavioral Effects.
- Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

LC50, Brine Shrimp (Artemia sp.), nauplii, 361230. UG/L, 48 H, Mortality, Water temperature: 27.00 C C.
Result:
Behavioral Effects.
- Comparative Toxicity of Four Insecticides, Including Imidacloprid and Tebufenozide, to Four Aquatic Arthropods, Song, M.Y., J.D. Stark, and J.J. Brown, 1997

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

13. Disposal Considerations

Waste Disposal Method:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. Transport Information

GHS Classification: Acute Toxicity: Oral, Category 4 - Warning! Harmful if swallowed
Acute Toxicity: Skin, Category 5 - Warning! May be harmful in contact with skin
Carcinogenicity, Category 1A - Danger! May cause cancer

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated.
DOT Hazard Class:
UN/NA Number:

LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Not Regulated.

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Environmentally Hazardous Substance, solid, n.o.s. (Bifenthrin Mixture)
UN Number: 3077 **Packing Group:** III
Hazard Class: 9 - CLASS 9
IMDG MFAG Number:
IMDG EMS Page: **Marine Pollutant:** Yes

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
1317-65-3	Limestone	No	No	No
57-13-6	Urea	No	No	No
7447-40-7	Potassium chloride	No	No	No
14808-60-7	Quartz	No	No	No
138261-41-3	Imidacloprid	No	No	No

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

[X] Yes [ ] No Acute (immediate) Health Hazard
[X] Yes [ ] No Chronic (delayed) Health Hazard
[ ] Yes [X] No Fire Hazard
[ ] Yes [X] No Sudden Release of Pressure Hazard
[ ] Yes [X] No Reactive Hazard

Regulatory Information: This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels on non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION. KEEP OUT OF REACH OF CHILDREN.
Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before

eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing before reuse.

16. Other Information

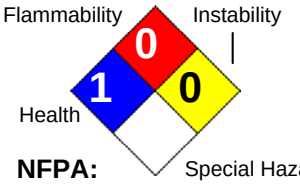
Revision Date: 06/20/2013

Hazard Rating System:

HMIS:

HEALTH	1
FLAMMABILITY	0
PHYSICAL	0
PPE	

NFPA:



Additional Information About This Product: No data available.