

1. Product and Company Identification

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|---------------------------|------------------------------|----------------------|
| Product Code: | 900386 | |
| Product Name: | TALSTAR 0.069% 0-0-7 | |
| Company Name: | Turf Care Supply Corp. | Phone Number: |
| | 50 Pearl Road | 1 (330)558-0910 |
| | Suite 200 | |
| | Brunswick, OH 44212 | |
| 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 |
| Synonyms: | Fertilizer with Insecticide. | |

2. Hazards Identification

Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 1
Specific Target Organ Toxicity (single exposure), Category 1
Specific Target Organ Toxicity (repeated exposure), Category 1
Aquatic Toxicity (Acute), Category 3
Aquatic Toxicity (Chronic), Category 3



GHS Signal Word: **Danger**

GHS Hazard Phrases:
 Causes skin irritation.
 Causes serious eye damage.
 Causes damage to organs
 Causes damage to organs through prolonged or repeated exposure.
 Harmful to aquatic life.
 Harmful to aquatic life with long lasting effects.

GHS Precaution Phrases:
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe dust.
 Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Wear appropriate personal protective equipment.

GHS Response Phrases:
 IF ON SKIN: Wash with plenty of soap and water.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed: Call a POISON CENTER or doctor/physician.
 Get medical attention/advice if you feel unwell.
 If skin irritation occurs, get medical advice/attention.
 Take off contaminated clothing and wash before re-use.

GHS Storage and Disposal Phrases:
 Store in a secure location.
 Dispose of contents/container to an appropriate disposal facility.

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| 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. 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 | 84.03 % |
| 7447-40-7 | Potassium chloride | 11.16 % |
| 14808-60-7 | Quartz | 2.801 % |
| 82657-04-3 | Bifenthrin | 0.069 % |

4. First Aid Measures

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| 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. Do NOT allow victim to rub eyes or keep eyes closed. |
| In Case of Ingestion: | 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. |
| Note to Physician: | Treat symptomatically and supportively. |

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

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. |
| 7447-40-7 | Potassium chloride | No data. | No data. | No data. |
| 14808-60-7 | Quartz | PEL: 8825 ppm/(%SiO2+5) | TLV: 0.05 mg/m3 (R) | No data. |
| 82657-04-3 | Bifenthrin | No data. | No data. | 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.
Characteristic pesticide solvent odor.

Melting Point: ~ 133.0 C

Boiling Point: No data.

Flash Pt: No data.

Evaporation Rate: No data.

Flammability (solid, gas): No data available.

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

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

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

Specific Gravity (Water = 1): No data.

Bulk density: ~ 45 - 65 LB/CF

Solubility in Water: ~ 1,080 g/L at 20.0 C

Solubility Notes: The solubility value cited is for the urea component of this product, if present. See section 3.

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| Percent Volatile: | No data. |
| Autoignition Pt: | No data. |
| Decomposition Temperature: | ~ 135.0 C |
| Additional Physical Information | The melting point and decomposition temperatures cited are for the urea component of this product, if present. See section 3. Urea decomposes before boiling. (UNEP Publication, OECD SIDS UREA, CAS No: 57-13-6) |

10. Stability and Reactivity

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| Stability: | Unstable [<input type="checkbox"/>] Stable [<input checked="" type="checkbox"/>] |
| 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: | The decomposition of fertilizer products may result in the generation of some or all of the following: ammonia, formaldehyde, biuret, chlorine, cyanic acid, and cyanide, and oxides of carbon, nitrogen, phosphorus, potassium, sulfur, and chlorine, and oxides of alkaline earth metals, and certain heavier metals used as nutrients in fertilizer products, such as copper, iron, manganese, and zinc, and other irritating and toxic fumes and gases. |
| Possibility of Hazardous Reactions: | Will occur [<input type="checkbox"/>] Will not occur [<input checked="" type="checkbox"/>] |
| Conditions To Avoid - Hazardous Reactions: | No data available. |

11. Toxicological Information

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| Toxicological Information: | <p>Epidemiology: No information found. Teratogenicity: Teratogenic effects have occurred in experimental animals. Neurotoxic effects have occurred in experimental animals. Reproductive toxicity - no data available. Inhalation: May cause damage to organs through prolonged or repeated exposure.</p> <p>CAS# 7447-40-7: Potassium chloride: Acute toxicity, LD50, Oral, Rat, 2600. MG/KG; "Sbornik Vysledku Toxilogickeho 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</p> <p>Standard Draize Test, Eyes, Species: Rabbit, 500.0 MG, 24 H; "Sbornik Vysledku Toxilogickeho 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</p> <p>CAS# 82657-04-3: Bifenthrin: Acute toxicity, LD50, Oral, Rat, 54500. UG/KG; Pesticide Manual., The British Crop Protection Council, 20 Bridport Rd., Thornton Heath CR4 7QG UK, Vol/p/yr: 9,73, 1991</p> <p>Acute toxicity, LD50, Skin, Species: Rabbit, > 2.000 GM/KG; Pesticide Manual., The British Crop Protection Council, 20 Bridport Rd., Thornton Heath CR4 7QG UK, Vol/p/yr: 9,73, 1991</p> |
| Carcinogenicity/Other | This material may contain small amounts of respirable crystalline and amorphous silica. |

Information: The International Agency for Cancer Research (IARC) has classified crystalline silica as a carcinogen to humans (Group 1), and amorphous silica as not classifiable as to its carcinogenicity to humans (Group 3). See "Silica, Some Silicates, Coal dust and para-Aramid Fibrils in IARC Monographs on the Evaluation of Carcinogenic Risks to Humans", (Vol. 68).

| CAS # | Hazardous Components (Chemical Name) | NTP | IARC | ACGIH | OSHA |
|------------|--------------------------------------|-------|------|-------|------|
| 1317-65-3 | Limestone | n.a. | n.a. | n.a. | n.a. |
| 7447-40-7 | Potassium chloride | n.a. | n.a. | n.a. | n.a. |
| 14808-60-7 | Quartz | Known | 1 | A2 | n.a. |
| 82657-04-3 | Bifenthrin | n.a. | n.a. | n.a. | n.a. |

12. Ecological Information

General Ecological Information: Environmental: 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 of variables (such as increasing the pellet size of the fertilizer) can decrease the degradation rate from days to weeks.

CAS# 7447-40-7: Potassium chloride:

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 1610000. UG/L, 48 H, Mortality, Water temperature: 17.00 C C, pH: 7.70, Hardness: 40.00 MG/L; Toxicity of Candidate Molluscicides to Zebra Mussels (*Dreissena polymorpha*) and Selected Nontarget Organisms, Waller, D.L., J.J. Rach, W.G. Cope, L.L. Marking, S.W. Fisher, and H. Dabrowska, 1993

CAS# 82657-04-3: Bifenthrin:

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 0.150 PPB, 96 H, Mortality; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

Persistence and Degradability: No data available.

Bioaccumulative Potential: Bifenthrin: Log (Kow) = 6.4 (Thurston County Health Dept. - 412 Lilly Road NE - Olympia, WA 98506)

Mobility in Soil: No data available.

13. Disposal Considerations

Waste Disposal Method: If material cannot be completely used according to label directions, dispose of container and contents according to this section.
Contact a licensed professional waste disposal service to dispose of this material.

Do not let product enter drains.

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.

Packaging: Empty bag may be placed in trash.

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated.

DOT Hazard Class:

UN/NA Number:

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 |
| 7447-40-7 | Potassium chloride | No | No | No |
| 14808-60-7 | Quartz | No | No | No |
| 82657-04-3 | Bifenthrin | No | No | Yes |

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

| | |
|--|-----------------------------------|
| <input checked="" type="checkbox"/> Yes [] No | Acute (immediate) Health Hazard |
| <input checked="" type="checkbox"/> Yes [] No | Chronic (delayed) Health Hazard |
| [] Yes <input checked="" type="checkbox"/> No | Fire Hazard |
| [] Yes <input checked="" type="checkbox"/> No | Sudden Release of Pressure Hazard |
| [] Yes <input checked="" type="checkbox"/> 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.

KEEP OUT OF REACH OF CHILDREN
CAUTION

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

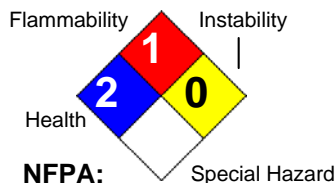
Caution

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

16. Other Information

Revision Date: 05/15/2015

Hazard Rating System:



Additional Information About No data available.

This Product:

Company Policy or

Disclaimer:

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and Turf Care Supply Corp. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purposes.