



# Turf Titan Lawn Commander

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

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### SECTION 1: Identification

<b>Product Identifier</b>	<b>Turf Titan Lawn Commander</b>
<b>Recommended use</b>	Enhanced plant growth and vigor, increased soil health
<b>Recommended restrictions</b>	None known.
<b>Manufacturer Information</b>	BW Fusion 3850 Concept Court, Suite 101 Fort Wayne, IN 46808 – USA Phone : 888-970-0955
<b>Emergency telephone number</b>	<b>1-800-424-9300 (CHEMTREC)</b>

### SECTION 2: Hazard(s) identification

#### Classification of the substance or mixture

**GHS US classification** Eye Irrit. 2A

#### GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

Warning

Hazard statements (GHS US)

Causes serious eye irritation

Precautionary statements (GHS US)

Wash hands, forearms and face thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

#### Other hazards which do not result in classification

No additional information available

#### Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### Mixture

Name	Product identifier	%
Ammonium nitrate	(CAS-No.) 6484-52-2	17 – 27
Urea	(CAS-No.) 57-13-6	15 – 25

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

### SECTION 4: First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
<b>Skin Contact</b>	If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.
<b>Eye Contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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**Ingestion** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

### Most important symptoms and effects (acute and delayed)

Symptoms/effects after Inhalation May cause irritation to the respiratory tract.  
Symptoms/effects after Skin Contact May cause skin irritation. Repeated exposure may cause skin dryness or cracking.  
Symptoms/effects after Eye Contact Causes eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.  
Symptoms/effects after ingestion May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 5: Fire-fighting measures

### Suitable (and unsuitable) extinguishing media

Suitable extinguishing media Water. Foam. Carbon dioxide. Dry chemical.  
Unsuitable extinguishing media Do not use water jet.

### Specific hazards arising from the chemical

Fire hazard Products of combustion may include, and are not limited to: oxides of carbon. irritating vapors. Gaseous ammonia. Metal oxides. Oxides of phosphorus. Oxides of nitrogen. Oxides of sulfur. Potassium oxides.

### Special protective equipment and precautions for fire-fighters

Protection during firefighting Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

General measures Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**For non-emergency personnel** No additional information available

**For emergency responders** No additional information available

**Environmental precautions** Prevent entry to sewers and public waters

### Methods and material for containment and cleaning up

For containment Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

**Reference to other sections** For further information refer to section 8: "Exposure controls/personal protection"

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## SECTION 7: Handling and storage

### Precautions for safe handling

Precautions for safe handling Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

Hygiene measures Wash contaminated clothing before reuse. Always wash hands after handling the product.

### Conditions for safe storage, including any incompatibilities

Storage conditions Keep out of the reach of children. Store tightly closed in a dry, cool and well-ventilated place.

Storage temperature 50 – 90 °F

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### SECTION 8: Exposure controls/personal protection

#### Control parameters

<b>Turf Titan Lawn Commander</b>
No additional information available
<b>Ammonium nitrate (6484-52-2)</b>
No additional information available
<b>Urea (57-13-6)</b>
No additional information available

#### Appropriate engineering controls

Appropriate engineering controls	Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
Environmental exposure controls	Avoid release to the environment.

#### Individual protection measures/Personal protective equipment

<b>Hand protection:</b>	Wear suitable gloves
<b>Eye protection:</b>	Wear eye/face protection
<b>Skin and body protection:</b>	Wear suitable protective clothing
<b>Respiratory protection:</b>	In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Other information:</b>	Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear to hazy
Color	Light green
Odor	No data available
Odor threshold	No data available
pH	4.5 – 5.5
Melting point	< 0 °C (32 F)
Freezing point	< 0 °C (32 F)
Boiling point	> 100 °C (212 F)
Flash point	Does not flash
Relative evaporation rate (butyl acetate=1)	No data available
Flammability (solid, gas)	No data available
Vapor pressure	No data available
Relative vapor density at 20 °C	No data available
Relative density	1.2 – 1.4 (20 °C / 68 °F)
Density	≈ 10.68
Solubility	Soluble.
Partition coefficient n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosion limits	No data available

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Explosive properties	No data available
Oxidizing properties	No data available
<b>Other information</b>	No additional information available

### SECTION 10: Stability and reactivity

#### Reactivity

No dangerous reactions known under normal conditions of use.

#### Chemical stability

Stable under normal conditions.

#### Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### Conditions to avoid

Heat. Incompatible materials.

#### Incompatible materials

Oxidizing materials. reducing agents. Caustics. Strong alkalis.

#### Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Gaseous ammonia. Metal oxides. Oxides of phosphorus. Oxides of nitrogen.

### SECTION 11: Toxicological information

#### Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

#### Ammonium nitrate (6484-52-2)

LD50 oral rat	2217 mg/kg
LD50 dermal rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	> 88.8 mg/l/4h
ATE US (oral)	2217 mg/kg body weight

#### Urea (57-13-6)

LD50 oral rat	8471 mg/kg
ATE US (oral)	8471 mg/kg body weight

Skin corrosion/irritation Not classified  
pH: 4.5 – 5.5

Serious eye damage/irritation Causes serious eye irritation.  
pH: 4.5 – 5.5

Respiratory or skin sensitization Not classified

Germ cell mutagenicity Not classified

Carcinogenicity Not classified

Reproductive toxicity Not classified

STOT-single exposure Not classified

STOT-repeated exposure Not classified

Aspiration hazard Not classified

Viscosity, kinematic No data available

Symptoms/effects after inhalation May cause irritation to the respiratory tract.

Symptoms/effects after skin contact May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact Causes eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Other information Likely routes of exposure: ingestion, inhalation, skin and eye.

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### SECTION 12: Ecological information

#### Toxicity

Ecology - general May cause long-term adverse effects in the aquatic environment.

#### Ammonium nitrate (6484-52-2)

EC50 - Crustacea [1] 490 mg/l Test organisms (species): Daphnia magna

#### Urea (57-13-6)

LC50 - Fish [1] 16200 – 18300 mg/l (Exposure time: 96 h - Species: Poecilia reticulata)

EC50 - Crustacea [1] 3910 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

#### Persistence and degradability

##### Turf Titan Lawn Commander

Persistence and degradability Not established.

#### Bioaccumulative potential

##### Turf Titan Lawn Commander

Bioaccumulative potential Not established.

#### Ammonium nitrate (6484-52-2)

BCF - Fish [1] (no bioaccumulation expected)

Partition coefficient n-octanol/water -3.1 (at 25 °C)

#### Urea (57-13-6)

BCF - Fish [1] < 10

Partition coefficient n-octanol/water -1.59 (at 25 °C)

#### Mobility in soil

No additional information available

#### Other adverse effects

Other information No other effects known.

### SECTION 13: Disposal considerations

#### Disposal methods

Product/Packaging disposal recommendations Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not regulated

### SECTION 15: Regulatory information

#### US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

#### International regulations

No additional information available

#### US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: Other information

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