



Safety Data Sheet

GreenPIG UV™

Safety Data Sheet dated: 4/4/2016 - version 1

Date of first edition: 4/4/2016

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: GreenPIG UV

Other means of identification:

Trade code: 630

Recommended use of the chemical and restrictions on use

Recommended use: Industrial color additive

Restrictions on use: Not available

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Turfgrass Management, Inc. d/b/a Grigg Brothers

PO BOX 128

Albion, IDAHO (USA)

Phone: 1-208-673-6340 / Fax: 1-866-519-3265

Emergency Number(CHEMTREC): 1-800-424-9300

2. HAZARD(S) IDENTIFICATION

This mixture has not been tested as a whole. It contains ingredients which could be released from the mixture in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees.

Classification of the chemical

0 The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements

The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not Available

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

Qty	Name	Ident. Numb.	Classification	Registration Number
7-10 %	MICA	CAS:12001-26-2 EC:310-127-6		
1-3 %	TITANIUM DIOXIDE CI 77891	CAS:13463-67-7 EC:236-675-5		

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

Wash with plenty of water and disinfectant/non-abrasive soap.

In case of eye contact:

Wash immediately with water.

In case of ingestion:

Do not induce vomiting, get medical attention showing the MSDS and label hazardous.

In case of inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

Not Available

Indication of any immediate medical attention and special treatment needed

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Water, CO2, foam, chemical powders, according to the materials involved in the fire.

In case of fire, use foam, dry chemical, CO2.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not Available

Explosive properties: Not Available

Oxidising properties: Not Available

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

Methods and material for containment and cleaning up

Suitable material for taking up: dry and inert absorbing material (e.g. vermiculite, sand, earth).

Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Storage temperature: Not Available

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Community Occupational Exposure Limits (OEL)

Component	OEL Type	Country	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Notes
MICA	ACGIH		3				pneumoconiosis;
TITANIUM DIOXIDE CI 77891	OSHA		15				
	ACGIH		10				A4 - Not Classifiable as a Human Carcinogen;lower respiratory tract irritation;
	EU		10.000				

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC LIMIT	Exposure Route	Exposure Frequency	Remark
TITANIUM DIOXIDE CI 77891	13463-67-7	1.000	mg/l	Fresh Water	
		1000.000	mg/kg	Freshwater sediments	
		0.127	mg/l	Marine water	
		100.000	mg/kg	Marine water sediments	
		100.000	mg/kg	Soil (agricultural)	
		100.000	mg/kg	Microorganisms in sewage treatments	
		1667.000	mg/kg	Food chain	

Derived No Effect Level (DNEL) values

Component	CAS-No.	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
TITANIUM DIOXIDE CI 77891	13463-67-7	10.000	10.000		inhalative		Long Term, local effects
				700.000	mg/m3	Oral	Long Term, systemic effects

Appropriate engineering controls: Not Available

Individual protection measures

Eye/face protection:

Not needed for normal use. Anyway, operate according good working practices.

Skin protection:

No special precaution must be adopted for normal use.

Hand protection:

Not needed for normal use.

Respiratory protection:

Control worker exposure to below detectable levels. However, if an effective ventilation system is not in use, use a NIOSH-approved respirator for organic vapors and/or dusts. Where appropriate, use closed systems to transfer and process this material. If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. Use local exhaust as required to capture all airborne vapors and dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

- Physical State Liquid
- Appearance: Liquid, Green
- Odour: Slight
- Odour threshold: Not Available
- pH: 8.10
- Melting point/ range: Not Available
- Boiling point/ range: Not Available
- Flash point: > 100°C / 212°F
- Evaporation rate: Not Available
- Upper/lower flammability or explosive limits: Not Available
- Vapour density: Not Available
- Vapour pressure (20°C): Not Available
- Density (20°C): 9.75 lbm/gal
- Water solubility: Not Available
- Lipid solubility: Not Available
- Partition coefficient (n-octanol/water): Not Available
- Auto-ignition temperature: Not Available
- Decomposition temperature: Not Available
- Viscosity (20°C): Not Available
- Explosive properties: Not Available
- Oxidising properties: Not Available
- Flammability (Solid, Gas): Not Available

Other information

Substance group relevant properties: Not Available

Substance group relevant properties: Not Available
Miscibility: Not Available
Fat Solubility: Not Available
Conductivity: Not Available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions.

Chemical stability

Data not Available.

Possibility of hazardous reactions

Burning produces carbon monoxide and/or carbon dioxide.

Conditions to avoid

Stable under normal conditions of temperature and pressure.

Incompatible materials

Avoid strong oxidizing agents, peroxides, acids, alkali metals.

Hazardous decomposition products

Burning produces carbon monoxide and/or carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological Information of the Preparation

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information on main components of the mixture:

MICA	d) respiratory or skin sensitisation	Skin Sensitization Guinea pig Negative
	b) skin corrosion/irritation	Skin Irritant Rabbit No Irritant effect
	c) serious eye damage/irritation	Eye Irritant Rabbit No Irritant effect
	a) acute toxicity	LD50 Oral Rat > 15000.00000mg/kg
TITANIUM DIOXIDE CI 77891	a) acute toxicity	LD50 Oral Rat > 5000.00000mg/kg
		LC50 Inhalation Rat > 6.82000mg/l 4h

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

Substance(s) listed on the IARC Monographs:

MICA	Group 2B
TITANIUM DIOXIDE CI 77891	Group 2B

Substance(s) listed as OSHA Carcinogen(s):

TITANIUM DIOXIDE CI 77891

Substance(s) listed as NIOSH Carcinogen(s):

TITANIUM DIOXIDE CI 77891

Substance(s) listed on the NTP report on Carcinogens:

None

12. ECOLOGICAL INFORMATION

Toxicity

Adopt good working practices, so that the product is not released into the environment.

Persistence and degradability

Not Available

Bioaccumulative potential

Not Available

Mobility in soil

Not Available

Other adverse effects

Not Available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Any disposal practice must be in compliance with local, state and federal laws and regulations (contact local or state environmental agency for specific rules). Do not dump into sewers, any body of water or onto the ground.

Recover if possible. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

UN number

ADR-UN number: N/A

DOT-UN Number: N/A

IATA-Un number: N/A

IMDG-Un number: N/A

UN proper shipping name

ADR-Shipping Name: N/A

DOT Proper Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

Transport hazard class(es)

ADR-Class: N/A

DOT Hazard Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

Packing group

ADR-Packing Group: N/A

Exempted for ADR: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

Environmental hazards

Marine pollutant: No

Environmental Pollutant: Not Available

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Available

Special precautions

Department of Transportation (DOT/TDG):

DOT-Special Provision(s): N/A

DOT Label(s): N/A

DOT Symbol: N/A

DOT Cargo Aircraft: N/A

DOT Passenger Aircraft: N/A

DOT Bulk: N/A

DOT Non-Bulk: N/A

Road and Rail (ADR-RID):

ADR-Label: N/A

ADR-Upper number: N/A

ADR-Tunnel Restriction Code: N/A

Air (IATA):

IATA-Passenger Aircraft: N/A

IATA-Cargo Aircraft: N/A

IATA-Label: N/A
IATA-Sub Risk: N/A
IATA-Erg: N/A
IATA-Special Provisioning: N/A

Sea (IMDG):

IMDG-Stowage Code: N/A
IMDG-Stowage Note: N/A
IMDG-Sub Risk: N/A
IMDG-Special Provisioning: N/A
IMDG-Page: N/A
IMDG-Label: N/A
IMDG-EMS: N/A
IMDG-MFAG: N/A

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All component(s) are listed on the TSCA inventory.

TSCA listed substances:

MICA is listed in TSCA Section 8b
TITANIUM DIOXIDE CI 77891 is listed in TSCA Section 8b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

no substances listed

Section 304 - Hazardous substances:

no substances listed

Section 313 - Toxic chemical list:

no substances listed

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

no substances listed

CAA - Clean Air Act

CAA listed substances:

no substances listed

CWA - Clean Water Act

CWA listed substances:

no substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

TITANIUM DIOXIDE CI 77891 Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

MICA
TITANIUM DIOXIDE CI 77891

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

MICA
TITANIUM DIOXIDE CI 77891

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

MICA

TITANIUM DIOXIDE CI 77891

L2. This product contains a chemical that is on the Proposition 65 list of chemicals known to the State of California to cause cancer (titanium dioxide). However, a Proposition 65 warning is required for titanium dioxide only when it is present in the form of airborne, unbound particles of respirable size (mass median aerodynamic diameter 10 microns or smaller). Per the State of California, exposure to titanium dioxide for the purposes of Proposition 65 does not occur when it remains bound within a product matrix (http://oehha.ca.gov/prop65/prop65_list/090211list.html). Because the titanium dioxide contained in this product is bound within a liquid dispersion matrix, a Proposition 65 warning is not applicable to this product in its supplied form. The customer is responsible for determining whether its use of this product could result in exposure of any person(s) to airborne, unbound titanium dioxide particles of respirable size and for providing any required Proposition 65 warning to any such person(s).

CANADA:

DSL-list (Canada)

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

16. OTHER INFORMATION

Safety Data Sheet dated: 4/4/2016 - version 1

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

CLP: Classification, Labeling, Packaging

EINECS: European Inventory of Existing Commercial Chemical Substances

INCI: International Nomenclature of Cosmetic Ingredients

CAS: Chemical Abstracts Service (division of the American Chemical Society)

GefStoffVO: Ordinance on Hazardous Substances, Germany

LC50: Lethal concentration, for 50 percent of test population

LD50: Lethal dose, for 50 percent of test population

DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration

TLV: Threshold Limiting Value

TWATLV: Threshold Limiting Value for the Time Weighted Average 8 hour day.(ACGIH Standard)

STEL: Short Term Exposure limit

STOT: Specific Target Organ Toxicity

WGK: German Water Hazard Class

KSt: Explosion coefficient