



Material Safety Data Sheet

United States

The Scotts Company
14111 Scottslawn Road
Marysville, Ohio 43041
United States

24 h. EMERGENCY TELEPHONE NUMBER
CHEMTREC (U.S.) 1-800-424-9300
CHEMTREC (International) 1-703-527-3887
Non-Emergency Calls
1-937-644-0011

GRUBEX I

1. Product and company identification

SKU # : 99605-1, 99675A1
MSDS # : 320000000503

2. Hazards identification

Physical state : Solid [granules]

Odor : Earthy odor

OSHA/HCS status : This material is/or contains a chemical that is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview : When used as directed this product does not present a hazard to humans or domestic animals. Wash thoroughly after handling.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage.

Carcinogenicity : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Target organs : Contains material which causes damage to the following organs:
upper respiratory tract
skin
eyes
stomach

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin : No specific data.

Eyes : No specific data.

Medical conditions aggravated by over-exposure : None known.

Interactions with other Chemicals : Not available.

See toxicological information (section 11)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Cellulose	9004-34-6	40 - 70
Kaolin	1332-58-7	30 - 40
Carbonic acid calcium salt (1:1)	471-34-1	15 - 30
Titanium oxide (TiO ₂)	13463-67-7	0.5 - 1

4. First aid measures

- Eye contact** : Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin contact** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation** : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
- Ingestion** : Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : No specific data.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Do not apply directly to water. To protect the environment, do not allow pesticide to enter or run-off into storm drains, drainage ditches gutters or surface waters
- Methods for cleaning up** : Vacuum or sweep up material and place in container for disposal. Never place down drain.

7. Handling and storage

- Handling** : Avoid inhalation or contact with skin, eyes or clothing. Avoid container breakage. Do not contaminate water sources when disposing of equipment washwater or rinsate. Keep out of lakes, stream or ponds. Keep out of reach of children.
- Storage** : Store in original container in a cool, dry, well-ventilated area inaccessible to children and pets. Do not contaminate food or feedstuffs.

8. Exposure controls/personal protection

Product name

Cellulose

Exposure limits

OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m³ Form: Total dust

OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 5 mg/m³ Form: Respirable fraction

NIOSH REL (1994-06-01) Time Weighted Average (TWA) 10 mg/m³ Form: Total

NIOSH REL (1994-06-01) Time Weighted Average (TWA) 5 mg/m³ Form: Respirable fraction

ACGIH TLV (1994-09-01) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m³

Kaolin

OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m³ Form: Total dust

OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 5 mg/m³ Form: Respirable fraction

NIOSH REL (1994-06-01) Time Weighted Average (TWA) 10 mg/m³ Form: Total

NIOSH REL (1994-06-01) Time Weighted Average (TWA) 5 mg/m³ Form: Respirable fraction

ACGIH TLV (1996-05-18) Notes: The agent (mixture, or exposure circumstance) is not classifiable as to its carcinogenicity to humans. 1996 Adoption Refers to Appendix A -- Carcinogens.

TLV-TWA: Threshold Limit Value - Time weighted average
PEL: Permissible Exposure Level 2 mg/m³ Form: Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.

Carbonic acid calcium salt (1:1)

OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m³ Form: Total dust

OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 5 mg/m³ Form: Respirable fraction

Titanium oxide (TiO₂)

OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m³ Form: Total dust

NIOSH REL (1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen

ACGIH TLV (1996-05-18) Notes: The agent (mixture, or

exposure circumstance) is not classifiable as to its carcinogenicity to humans. Substance identified by other sources as a suspected or confirmed human carcinogen. Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL. 1996 Adoption Refers to Appendix A -- Carcinogens.
TLV-TWA: Threshold Limit Value - Time weighted average
PEL: Permissible Exposure Level 10 mg/m3

Consult local authorities for acceptable exposure limits.

- Engineering measures** : Use adequate ventilation to keep the airborne concentrations below the recommended exposure standard.
- Hygiene measures** : Wash thoroughly with soap and water after handling. Remove and launder contaminated clothing before reuse.
- Personal protection**
- Respiratory** : No special respiratory protection required. If ventilation is inadequate to keep the airborne concentrations below the recommended exposure standard wear appropriate respiration protection.
- Hands** : Protective gloves are not required, but may be used in situations were significant contact is expected.
- Eyes** : Protective eyewear is not required, but may be used in situations were contact is expected.
- Skin** : No special protective clothing is required.

9. Physical and chemical properties

- Physical state** : Solid [granules]
- Color** : Gray to Tan
- Flash point** : Not available.
- Auto-ignition temperature** : Not available.
- Odor** : Earthy odor
- Odor threshold** : Not available.
- pH** : Not available.
- Boiling/condensation point** : Not available.
- Melting/freezing point** : Not available.
- Critical temperature** : Not available.
- Density** : 44 LBF
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Evaporation rate** : Not available.
- Viscosity** : Not available.
- Solubility** : Not available.
- Partition Coefficient (n-octanol)** : Not available.
- Decomposition temperature** : Not available.

10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Materials to avoid** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Cellulose	LD50 Oral	Rat	> 5,000 mg/kg	-
Kaolin	LD50 Oral	Rat	> 2,000 mg/kg	-
Carbonic acid calcium salt (1:1)	LD50 Oral	Rat	6,450 mg/kg	-
Cellulose	LD50 Dermal	Rabbit	> 2,000 mg/kg	-

Conclusion/Summary Very low toxicity to humans or animals.

Irritation/Corrosion

Skin	Non-irritating
Eyes	May cause eye irritation.
Respiratory	May cause respiratory irritation

Sensitizer

Conclusion/Summary	Skin	Not sensitizing
	Respiratory	Not sensitizing - based on the individual components.

Chronic toxicity

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary No known significant effects or critical hazards.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Kaolin	A4					
Titanium oxide (TiO2)	A4	2B		+		

Mutagenicity

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary No known significant effects or critical hazards.

Reproductive toxicity

Conclusion/Summary No known significant effects or critical hazards.

12. Ecological information

Ecotoxicity This pesticide is extremely toxic to fish, aquatic invertebrates, oysters and shrimp.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Titanium oxide (TiO2)	Acute EC50 > 1,000 mg/l Fresh water	Daphnia - Water flea	2 d
Titanium oxide (TiO2)	Acute EC50 5.83 mg/l Fresh water	Aquatic plants - Green algae	3 d
Conclusion/Summary	No known significant effects or critical hazards.		

Persistence/degradability

Conclusion/Summary No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information

Regulatory

<u>information</u>	<u>UN no.</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>PG*</u>	<u>Note</u>
DOT		Not Regulated			
IATA (C)		Not Regulated			
IATA (P)					
IMDG		Not Regulated			
TDG		Not Regulated			

PG* : Packing group

15. Regulatory information

United States	:	
U.S. Federal regulations	:	
United States inventory (TSCA 8b)	:	All components are listed or exempted.
Canada inventory	:	At least one component is not listed.

16. Other information

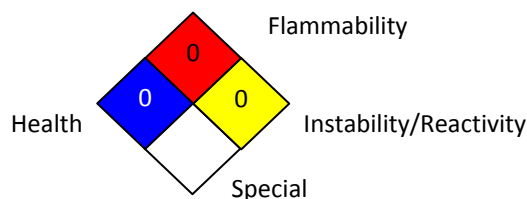
Hazardous Material Information System (U.S.A.) :

Health	1
Flammability	0
Physical hazards	0

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The customer is responsible for determining the PPE code for this material.

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Latest revision date	05/17/2012
Date of previous issue	00/00/0000
Version	0.0

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