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United States

Safety Data Sheet

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

Section 1. Identification

GHS product identifier : GRUBEX I
Product type : Pesticide
SDS # : 320000000503
EPA Registration Number: : 538-306

Relevant identified uses of the substance or mixture and uses advised against

Use only in accordance with label directions.

Section 2. Hazards identification

This product is regulated by the Environmental Protection Agency (EPA) for label precautionary text see Section 15.

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees

and other users of this product.

Classification of the substance or

mixture

Not classified.

GHS label elements

Signal word : None

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice

is needed, have product container or label at hand.

Prevention : Not applicable.

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Response:Not applicable.Storage:Not applicable.Disposal:Not applicable.Supplemental label elements:None known.Hazards not otherwise classified:None known.

Section 3. Composition/information on ingredients

Substance/mixture: MixtureChemical name: Not available.Other means of identification: Not available.

| Ingredient name | % | CAS number |
|----------------------------|--------------|------------|
| Titanium oxide | >= 0.3 - < 1 | 13463-67-7 |
| 2-Pyrrolidinone, 1-methyl- | >= 0.3 - < 1 | 872-50-4 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the

upper and lower eyelids. Check for and remove any contact lenses.

Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable

for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated

clothing and shoes. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. If material has been swallowed and the

exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.Inhalation: No known significant effects or critical hazards.Skin contact: No known significant effects or critical hazards.Ingestion: No known significant effects or critical hazards.

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Over-exposure signs/symptoms

Eye contact No specific data. Inhalation No specific data. Skin contact No specific data. **Ingestion** No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically. Contact poison treatment specialist Notes to physician

immediately if large quantities have been ingested or inhaled.

Specific treatments No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without

suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Use an extinguishing agent suitable for the surrounding fire.

None known.

Specific hazards arising from the chemical

No specific fire or explosion hazard.

Hazardous thermal decomposition products

Decomposition products may include the following materials: carbon dioxide

carbon monoxide

Special protective actions for firefighters

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.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece operated

in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without For non-emergency personnel

suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of

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any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Spill

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures Advice on general occupational hygiene Put on appropriate personal protective equipment (see Section 8).

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|---|
| Titanium oxide | OSHA PEL 1989 (1989-03-01) |
| | TWA 10 mg/m3 Form: Total dust |
| | OSHA PEL (1993-06-30) |
| | TWA 15 mg/m3 Form: Total dust |
| | NIOSH REL (1994-06-01) |
| | |
| | Notes: See Appendix A - NIOSH Potential Occupational Carcinogen |

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| | ACGIH TLV (1996-05-18) TWA 10 mg/m3 |
|----------------------------|---|
| 2-Pyrrolidinone, 1-methyl- | AIHA WEEL (1999-01-01) TWA, 10 ppm Notes: This chemical was reaffirmed and is included in the 2010 Update Set |

Appropriate engineering controls

Good general ventilation should be sufficient to control worker

exposure to airborne contaminants.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical

products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety

showers are close to the workstation location.

Eye/face protection: Protective eyewear is not required, but may be used in situations were

contact is expected.

Skin protection

Hand protection : Protective gloves are not required, but may be used in situations were

significant contact is expected.

Body protection: No special protective clothing is required.

Other skin protection : Appropriate footwear and any additional skin protection measures

should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this

product.

Respiratory protection : Use a properly fitted, particulate filter respirator complying with an

approved standard if a risk assessment indicates this is necessary. 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.

Section 9. Physical and chemical properties

Appearance

Physical state : solid [granules]

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Color : Gray to Tan

Odor Earthy odor **Odor threshold** Not available. pΗ Not available. **Melting point** Not available. **Boiling point** Not available. Flash point Not available. **Evaporation rate** Not available. Flammability (solid, gas) Not available.

Lower and upper explosive : Lower: Not available. (flammable) limits : Upper: Not available.

Vapor pressure: Not available.Vapor density: Not available.Relative density: Not available.Solubility: Not available.Partition coefficient: n-: Not available.

octanol/water

Auto-ignition temperature : Not available. **Decomposition temperature** : Not available.

Viscosity : Dynamic: Not available.

Kinematic: Not available.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or

its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will

not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition : Under normal conditions of storage and use, hazardous decomposition

products products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------|---------|---------------|----------|
| | | | | |
| | LD50 Oral | Rat | > 5,000 mg/kg | - |
| | LC50 Inhalation | Rat | > 5 mg/l | 4 h |
| | LD50 Dermal | Rat | > 5,000 mg/kg | - |

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Conclusion/Summary: No known significant effects or critical hazards.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------|---------|-------|----------|-------------|
| | Eyes - | Rabbit | < 1.0 | | - |
| | Redness of | | | | |
| | the | | | | |
| | conjunctivae | | | | |
| | Skin - | Rabbit | < 1.5 | | - |
| | Erythema/Es | | | | |
| | char | | | | |

Conclusion/Summary

Skin : Non-irritating

Eyes : May cause eye irritation.
Respiratory : May cause respiratory irritation

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|------------|-----------------|
| | Skin | Guinea pig | Not sensitizing |

Conclusion/Summary

Skin : Not sensitizing

Respiratory: Not sensitizing - based on the individual components.

Mutagenicity

Conclusion/Summary: No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary: No known significant effects or critical hazards.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Titanium oxide | | 2B | |

Reproductive toxicity

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Specific target organ toxicity (repeated exposure)

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Not available.

Aspiration hazard

Not available.

Information on the likely routes of

exposure

Not available.

Potential chronic health effects

Conclusion/Summary: No known significant effects or critical hazards.

General:No known significant effects or critical hazards.Carcinogenicity:No known significant effects or critical hazards.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.

Section 12. Ecological information

Toxicity

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary: No known significant effects or critical hazards.

Mobility in soil

Soil/water partition coefficient :

(KOC)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be

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disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Regulatory

information UN no. Proper shipping name Class PG* Note

DOT Not Regulated IATA (C) Not Regulated

IATA (P)

IMDG Not Regulated TDG Not Regulated

PG*: Packing group

Section 15. Regulatory information

Precautionary statements

Signal word : No signal word.

Emergency Overview : Keep out of reach of children. Wash thoroughly after handling.

<u>U.S. Federal regulations</u>: United States inventory (TSCA 8b):

All components are listed or exempted.

State regulations

California Prop. 65

Not available.

International lists

National inventory

Australia: At least one component is not listed.Canada: At least one component is not listed.China: At least one component is not listed.Europe: At least one component is not listed.Japan: At least one component is not listed.

Malaysia : Not determined.

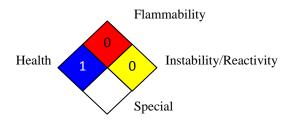
New Zealand: At least one component is not listed.Philippines: At least one component is not listed.Republic of Korea: At least one component is not listed.

Taiwan : Not determined.

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Section 16. Other information

National Fire Protection Association (U.S.A.):



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Procedure used to derive the classification

| Classification | Justification |
|-----------------|---------------|
| Not classified. | |

History

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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