Groom® PGR

Safety Data Sheet

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Date of issue: 05/19/2015 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Groom® PGR

Synonyms: Trinexapac-ethyl

Other means of identification: EPA Reg. No. 83070-4

1.2. Intended Use of the Product

Use of the substance/mixture: Plant Growth Regulator

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

Advan LLC

2525 Meridian Parkway, Suite 350

Durham, NC 27713

T 919-226-1195

1.4. Emergency Telephone Number

Emergency Number : (800) 424-9300 CHEMTREC (transportation and spills) (800) 900-4044 Poison Control Center (human health) (800) 345-4735 ASPCA (animal health)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Specific Target Organ Toxicity: Repeated Category 2

Specific Target Organ Toxicity: Drowsiness Category 3 Eye Damage/Irritation: Category 2A

Flammable Liquid: Category 4

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS06

GHS08

Signal Word (GHS-US) : Warning

Hazard Statements (GHS-US) : Combustible liquid
Causes serious eye irritation
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure

Precautionary Statements (GHS-US) : Keep away from heat, sparks, open flames, hot surfaces. No smoking.
Wear protective gloves, protective clothing, eye protection.
In case of fire: Use dry chemical, foam or C02 for extinction. Store in a well-ventilated place.
Keep cool.
Do not breathe mist, vapors, spray.
Wash hands and face thoroughly after handling. Use only outdoors or in a well-ventilated area.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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.
Call a poison center, doctor or Chemtrec if you feel unwell.
Store locked up.
Dispose of contents and container in accordance with local regulations.

2.3. Other Hazards

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distantignition sources and flash back. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	%
Trinexapac-ethyl	(CAS No) 95266-40-3	11.3
TetrahydrofurfurylAlcohol	(CAS No) 97-99-4	<50

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

First-aid Measures After Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes.

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area.

4.2. Most important symptoms and effects, both acute and delayed

Eye irritation
Drowsiness or dizziness
Respiratory irritation

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable/Unsuitable Extinguishing Media: Dry chemical, foam or carbon dioxide. If water is used, dike and collect runoff. Use extinguishing media appropriate for surrounding fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Combustible liquid.

Explosion Hazard: Product is not explosive. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

Reactivity: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

5.3. Advice for Firefighters

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Wear full protective clothing and self-contained breathing apparatus. Evacuate non-essential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses. De-contaminate equipment or materials involved in pesticide fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Handle in accordance with good industrial hygiene and safety practice.

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).
Emergency Procedures: Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid.
Methods for Cleaning Up: Control the spill at its source. Contain the spill to prevent from spreading or contaminating soilor from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Hygiene Measures: Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.
Incompatible Products: None
Storage Area: Store locked up.

7.3. Specific End Use(s) Plant Growth Regulator

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

Chemical Name	OSHA PEL	ACGIH TLV	other	Source
Tetrahydrofurfuryl Alcohol	Not Established	Not Established	0.5 ppm TWA	AIHA
Trinexapac-Ethyl	Not Established	Not Established	10 mg/mS TWA	Syngenta

8.2. Exposure Controls

Appropriate Engineering Controls : Use effective engineering controls to comply with occupational exposure limits (if applicable).

Personal Protective Equipment : Protective goggles. Gloves. Dust/aerosol mask.

Hand Protection : Wear chemically resistant protective gloves.

Eye Protection : Chemical goggles or safety glasses.

Respiratory Protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information : Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Liquid

Appearance	: Amber
Odor	: Odorless
Odor Threshold	: No data available
pH	: 3.63
Evaporation Rate	: No data available
Melting Point	: Not applicable
Freezing Point	: Not applicable
Boiling Point	: No data available
Flash Point	: 170°F
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Combustible liquid
Vapor Pressure	: 1.6 x 10 (-5) torr @25°C (Trinexapac-ethyl)
Relative Vapor Density at 20 °C	: No data available
Relative Density	: 1.0698 g/cm^3 @20°C
Solubility	: 10.2 g/l@25°C (Trinexapac-ethyl)
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

9.2. Other Information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Product is stable.

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: None known.

10.5. Incompatible Materials: None known.

10.6. Hazardous Decomposition Products: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Drowsiness or dizziness, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Eye irritation, Drowsiness or dizziness, Respiratory system effects

Numerical measures of toxicity (acute toxicity/irritation studies (end-use product)

Groom® PGR	
Oral (LD50 Rat)	> 5050 mg/kg body weight
Dermal (LD50 Rabbit)	> 2020 mg/kg body weight
Inhalation (LC50 Rat)	> 2.75 m/l air - 4 hours
Eye Contact (Rabbit)	Moderately Irritating
Skin Contact (Rabbit)	Non-Irritating
Skin Sensitization (Guinea Pig)	Not a Sensitizer

Tetranydrofurfuryl Alcohol
Acute exposure causes slight irritation of the skin. Prolonged exposure may cause mild nervous system effects, liver and kidney damage.

Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Suspected of causing cancer.

Trinexapac-ethyl (95266-40-3)	
IARC group	No
National Toxicology Program (NTP) Status	No

Tetrahdrofurfuryl Alcohol (97-99-4)	
IARC group	No
National Toxicology Program (NTP) Status	No

Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Liver, kidney, brain (dogs) effects at high doses (>5000 ppm).
Specific Target Organ Toxicity (Repeated Exposure): Not classified

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Trinexapac-ethyl (95266-40-3)	
LC_{50} Fish (Rainbow Trout)	65.7 ppm (96-hour)
EC_{50} Daphnia	>142.5 ppm (48-hour)
EC_{50} Green Algae	<1.4 ppm (5-day)
LD_{50} Bird (Mallard Duck)	>2000 mg/kg (14-day)

12.2. Persistence and Degradability

Groom® PGR	
Persistence and Degradability	Not established.

Trinexapac-ethyl (95266-40-3)	
Persistence and Degradability	Not persistent in soil or water.

12.3. Bioaccumulative Potential

Groom® PGR	
Bioaccumulative Potential	Not established.

Trinexapac-ethyl (95266-40-3)	
Bioaccumulative Potential	Low bioaccumulation potential.

12.4. Mobility in Soil: Moderate mobility of trinexapac-ethyl in soil.

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Do not reuse product containers. Dispose of waste material in accordance with all local, regional, national, and international regulations.
Ecology – Waste Materials: Hazardous waste due to toxicity.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/IMDG/DOT

14.1. UN Number

UN-No.(DOT) : 1993
DOT NA no. UN1993

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Combustible liquid, N.O.S. (Tetrahydrofurfuryl Alcohol)
Department of Transportation (DOT) : 3
Hazard Classes
Packing Group (DOT) : PG III

14.3. Additional Information

Transport by Ground (NAFTA)

Ground Transportation in NAFTA Region : Containers < 119 gallons cap: Not regulated
Containers > 119 gallons cap:
Proper Shipping Name: Combustible liquid, N.O.S.(Tetrahydrofurfuryl Alcohol)
Hazard Class: Class 3
Identification Number: NA1993
Packing Group: PG Ill

Transport by Sea

Water Transportation : Containers < 119 gallons cap: Not regulated
Containers > 119 gallons cap:
Proper Shipping Name: Combustible liquid, N.O.S.(Tetrahydrofurfuryl Alcohol)
Hazard Class: Class 3
Identification Number: NA1993
Packing Group: PG Ill

Transportation by Air

Air Transportation : Containers < 119 gallons cap: Not regulated
Containers > 119 gallons cap: Prohibited

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Groom® PGR	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard
EPA FIFRA Pesticide Product Notice	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 of 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.
EPA FIFRA Signal Word	Caution
EPA FIFRA Hazard Statements	Harmful if absorbed through skin, swallowed or inhaled. Causes moderate eye irritation.
EPA FIFRA Precautionary Statements	Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Trinexapac-ethyl (95266-40-3)	
SARA Section 313 - Emission Reporting	None
CERCLA/SAR 304 Reportable Quantity (RQ)	None
RCRA Hazardous Waste Classification (40 CFR 261)	Not applicable
TSCA Status	Exempt from TSCA. FIFRA regulated.

15.2 US State Regulations

Trinexapac-ethyl (95266-40-3)	
U.S. - California - Proposition 65 - Carcinogens List	This product **does not** contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 05/19/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)