

MATERIAL SAFETY DATA SHEET

Agrisel USA, Inc.
P.O. Box 3528
Suwanee, GA 30024

General Information No.
In Case of Emergency, Call

1-877-AGRISEL (247-4735)
1-877-854-2494

I. PRODUCT IDENTIFICATION

Product Name: Agrisel GrassOut Max Herbicide

Active Ingredient: Clethodim (26.4%)

Chemical Name: (E)-2-[1-[[[3-Chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one

II. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Compound	Percent	CAS No.	OSHA PEL	ACIGH TLV
Clethodim	25-27	99129-21-2	Not listed	Not listed
Petroleum distillates (contains)*	65-70	64742-94-5	Not listed	100 ppm
*Trimethylbenzene	2-3	-	Not listed	25 ppm TWA
*Naphthalene	5-7	5-7	10 ppm TWA	10 ppm TWA

III. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW****KEEP OUT OF REACH OF CHILDREN**

CAUTION: Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes, skin, or clothing.

POTENTIAL HEALTH HAZARDS

Health Hazards:

Moderate eye irritant.

Physical Hazards:

Combustible, may release toxic fumes if burned.

Environmental Hazards:

Slightly toxic to fish, other water organisms, and bees.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

HMIS Hazard Ratings:

Health: 2

Flammability: 2

Physical Hazard: 1

IV. FIRST AID MEASURES

If in Eyes:

Hold eye open and rinse slowly and gently with water for 15-20 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.

If on Skin or Clothing:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed:

Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything liquid to the person. Do not give anything by mouth to an unconscious person.

If Inhaled: 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.

Have the product label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-AGRISEL (247-4735) for more information regarding this product.

NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.

V. FIRE FIGHTING MEASURES

Flashpoint (method): 65° C (closed cup)

Flammable Limits: Unknown

Extinguishing Media: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

Fire and Explosion Hazard: Combustible Liquid. Can form explosive mixtures at temperatures at or above the flashpoint. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

Firefighting Instructions: Evacuate nonessential persons from area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off.

Firefighting Equipment: Full fire fighting turn-out gear (Bunker gear) including self-contained breathing equipment.

Hazardous Combustion Products: Oxides of nitrogen and sulfur. May produce toxic compounds of chlorine.

VI. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedure: Clean up spills immediately, observing precautions as described in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal. LARGE SPILL: Dike large spills using absorbent or impervious materials such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

VII. HANDLING AND STORAGE

Do not contaminate water, food, or feed by storage or disposal.
PESTICIDE STORAGE: Store in a cool, dry place in original container.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category G on an EPA chemical-resistant category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate or Viton >14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical description:	Dark amber liquid
Odor:	Mild aromatic
Specific Gravity:	0.93-0.98 g/mL @ 20° C (7.80-8.20 lb/gal)*
pH:	4.3
Vapor pressure:	Unknown
Vapor density:	Unknown
Water solubility:	Emulsifies in water.

X. STABILITY AND REACTIVITY

Chemical stability:	Unstable when exposed to extremes of pH, elevated temperatures, oxygen or UV light
Conditions to avoid:	Avoid temperatures above 90°F (35°C), exposure to air direct sunlight. Keep containers sealed to avoid exposure to air.
Incompatibility with other materials:	Oxidizing materials
Hazardous decomposition:	Oxides of hydrogen, nitrogen, and sulfur.
Hazardous polymerization:	Product will not undergo polymerization.

XI. TOXICOLOGICAL INFORMATION

Acute Toxicity (technical):	
Oral LD ₅₀ (rat):	5,000 mg/Kg (female)
Dermal LD ₅₀ (rat):	> 5,000 mg/Kg
Inhalation LC ₅₀ (rat):	> 2.0 mg/L (4 hour)
Eye Irritation (rabbit):	Moderate.
Skin Irritation (rabbit):	Moderate.
Sensitization (guinea pig):	Non-sensitizer.

Medical Conditions

Agrisel USA, Inc.

Date: 8/24/2009

Aggravated by Exposure:	Exposure to vapors may increase tendency to respiratory or bronchial infections.
Carcinogen Status:	
OSHA	Not listed.
NTP	Not listed.
IARC	Not listed.
Mutagenic Data:	No evidence of mutagenic effects during in vivo or in vitro studies.
Additional Data:	Not known to exhibit reproductive effects. Some teratogenic (birth defect) effects were noted in rats tested at elevated doses of 700 mg/Kg/day.

XII. ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

Fish Toxicity:	Technical
Rainbow Trout (96 hour LC ₅₀)	65 mg/L
Bluegill (96 hour LC ₅₀)	120 mg/L
Avian Toxicity:	Technical
Bobwhite quail Dietary LC ₅₀	>6,000 ppm
Mallard Duck Dietary LD ₅₀	>6,000 ppm
Bee Toxicity Contact LD ₅₀ :	>100 ug/bee.

XIII. DISPOSAL CONSIDERATIONS

Waste Disposal Method:	Pesticide wastes are acutely hazardous. Dispose of in accordance with applicable Federal, state and local laws and regulations.
Container Disposal:	Non-refillable containers (1, 2.5 gallon): Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. NON-REFILLABLE (<5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

XIV. TRANSPORT INFORMATION

DOT Shipping Description:	
Containers ≤ 119 gallons:	Not regulated.
Containers > 119 gallons:	NA 1993, Combustible liquid, N. O. S. (contains petroleum distillates, naphthalene), PG III, RQ (naphthalene)
DOT Hazard Class:	Combustible liquid
Identification Number:	NA 1993
DOT Packing Group:	PG III
DOT Primary/Secondary Label:	N/A
DOT Primary/Secondary Placard:	Combustible (>119 gallons)
DOT Emergency Response Guide #:	128
Agrisel USA, Inc.	

Date: 8/24/2009

XV. REGULATORY INFORMATION

CERCLA Reportable Quantity: 100 lb Naphthalene (180 gallons of product)

SARA Title III Status:
311/312 Hazard Categories Immediate, Delayed Health Effects, Fire Hazard
313 Toxic Chemicals Naphthalene

California Prop 65 Status: Not listed

XVI. OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Agrisel USA, Inc. knowledge. Agrisel USA, Inc. makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.