

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 Tengard Pro Termiticide/Insecticide
Active Ingredient: Permethrin (36.8%)
Chemical Family: Pyrethroid Insecticide

II. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Compound	% by wt.	CAS No.	OSHA PEL	EU Class
Permethrin	36.8	52645-53-1	None	R22

Ingredients not precisely identified are proprietary or non-hazardous.
Values are not product specifications.

III. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

KEEP OUT REACH OF CHILDREN

CAUTION: Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

This product is highly toxic to bees exposed to treatment and for 3 days following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. The 3 day limitation does not apply if the applicator operate in a state with a formal, state-approved bee protection program, and the applicator follows all applicable requirements of the state-approved program designed to ensure that managed bees are not present in the treatment area during this time period.

This product is extremely toxic to fish and aquatic invertebrates. 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 contaminate water by cleaning of equipment or disposal of equipment washwaters. Do not apply when weather conditions favor drift from treated areas.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

IV. FIRST AID MEASURES

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 any liquid to the person. Do not give anything by mouth to an unconscious person.

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 immediately for treatment advice.

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 Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: Contains petroleum distillates- vomiting may cause aspiration pneumonia. For emergency medical assistance, contact the Rocky Mountain Poison Control Center at 1-866-767-5089. For more information regarding this product, call 1-877-AGRISEL (247-4735).

V. FIRE FIGHTING MEASURES

Flashpoint (method used): 44°C (111°F)
Autoignition Temperature: No Data
Flammable Limits (LFL-UFL): Not Applicable
Unusual Fire and Explosion Hazards: None Known.
Extinguishing Media: Foam CO₂, or dry chemical. Soft stream water fog only if necessary. Contain all runoff.
Fire and Explosion Hazard: Moderately combustible. When heated above the flash point, this material releases vapors which, when mixed with air, can burn or be explosive.
Special Fire Fighting Procedures: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus.
Hazardous Decomposition: Chlorine, hydrogen chloride, carbon dioxide, carbon monoxide, and aldehydes.

VI. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken If Material Is Released Or Spilled:

Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section VIII Exposure Controls. Personal Protection. Keep unprotected persons and animals out of the area. Keep material out of streams and sewers. Dike to confine spill and absorb with an absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label content.

To clean and neutralize spill area, tools and equipment, wash with a suitable solution of caustic or soda ash and an appropriate alcohol (methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb as above, any excess liquid and add to the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section XIII Disposal Considerations.

VII. HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN

PESTICIDE STORAGE: Store at temperatures above 40°F (5°C). Shake container well before using. If crystals form, warm to room temperature by placing container in a room at ambient temperature 70°F (21°C) until crystals dissolve. Do not use or store near heat, open flame or hot surfaces. Keep out of reach children and animals. Store in a dry place and avoid excess heat in storage. Store in original containers only.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Specific Personal Protective Equipment: All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use and/or when mixing and loading using a closed spray tank transfer system such as U-Turn, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient. In addition: all pesticide handlers must wear a respiratory protection device approved by the Mine Safety and Health Administration (MSHA)/ National Institute for Occupational Safety and Health (NIOSH) such as TC-23C, TC-21C, TC-19C, TC-13F, and TC-14G when working in a non-ventilated space; all pesticide handlers must wear protective eyewear when working in a non-ventilated space or when applying termiticide by rodding or sub-slab injection.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Amber liquid, faint mild petroleum
Melting Point:	No data
Vapor pressure:	No data
Vapor Density (Air-1):	No data
Solubility in H ₂ O, % by Wt.:	Emulsifies
pH:	4.8 – 5.0 @ 20°C (6% in water)
Specific Gravity (H ₂ O=1)	1.039 @ 20°C (water = 1)
% Volatiles by Vol.:	No data
Molecular Weight:	391.3 (permethrin)
Weight per Volume:	8.65 lb./gal (1039 g/L)

X. STABILITY AND REACTIVITY

Conditions Contributing to Instability:	This product is stable.
Incompatibility:	Excessive heat and fire.
Conditions Contributing To Hazardous Polymerization:	Will not occur.

XI. TOXICOLOGICAL INFORMATION

Acute Effects from Overexposure:	
General:	Agrisel Tengard Pro Termiticide/Insecticide has low oral, dermal and inhalation toxicity. It is minimally irritating to the eyes and slightly irritating to the skin.
Ingestion:	Vomiting after ingestion of this product may cause aspiration of hydrocarbon solvents into the lungs that may result in fatal pulmonary edema.
Skin Contact:	Experience to date indicates that contact with permethrin has rarely produced skin sensations such as numbing, burning, tingling. These skin sensations are reversible and usually subside within 12 hours. Large toxic doses of Agrisel Tengard Pro Termiticide/Insecticide administered to laboratory animals have produced central nervous system effects with symptoms that include hypersensitivity to touch and sound, tremors, and chronic convulsions.

Inhalation:

Overexposure to animals via inhalation has also produced symptoms such as squinting eyes, irregular and rattling breathing and ataxis. Inhalation of hydrocarbon solvent vapors may cause dizziness, disturbance in vision drowsiness, respiratory irritation, and eye, skin and mucous membrane irritation.

Chronic Effects from Overexposure:

No data available for Agrisel Tengard Pro Termiticide/Insecticide. In studies with laboratory animals, permethrin did not cause reproductive toxicity or teratogenicity. Analysis of chronic feeding studies in both mice and rats with permethrin resulted in the conclusion that permethrin's potential for induction of oncogenicity in experimental animals in low and that the likelihood of oncogenic effects in humans is nonexistent or extremely low. Long term feeding studies in animals resulted in increased liver and kidney weights, induction of the liver microsomal drug metabolizing enzyme system, and histopathological changes in the lungs and liver. An overall absence of genotoxicity has been demonstrated mutagenicity testing with permethrin. Chronic exposure to hydrocarbon solvents may cause headaches, dizziness, loss of sensations or feelings, and liver and kidney damage.

XII. ECOLOGICAL INFORMATION

PHYSICAL AND ENVIRONMENTAL PROPERTIES

In soil, permethrin is stable over a wide range of pH values. When applied at agricultural use rates, permethrin has a moderate rate of degradation in soil. At termiticidal use rates, permethrin degrades at a slower rate, which is governed by soil characteristics. Due to its high affinity for organic matter (Koc=86,000), there is little potential for movement in soil or entry into ground water. Permethrin has a Log P_{ow} of 6.1, but a low potential to bioconcentrate (BCF=500) due to the ease with which it is metabolized.

ENVIRONMENTAL TOXICOLOGY

Permethrin is highly toxic to fish (LC₅₀ = 0.5 ug/L to 315 ug/L) and aquatic arthropods (LC₅₀ = 0.02 ug/L to 7.6 ug/L). Marloe species are often more sensitive than the freshwater species. Bacteria, algae, mollusks, and amphibians are much more tolerant of permethrin than the fish and arthropods. Care should be taken to avoid contamination of the aquatic environment. Permethrin is slightly toxic to birds and oral LD₅₀ values are greater than 3600 mg/kg. Longer dietary studies showed that concentrations of up to 500 ppm in the diet had no effect on bird reproduction.

XIII. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL:

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Nonrefillable container. DO NOT reuse or refill empty container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site contact your chemical dealer or manufacturer, or contact the Ag Container Recycling Council at www.acrecycle.org. Triple rinse container promptly after emptying.

For containers smaller than 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.

For containers larger than 5 gallons,
triple rinse as follows:

Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuing at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

XIV. TRANSPORT INFORMATION

US DOT (Department of Transportation)
Reportable Quantity (RQ): None

US Surface Freight Class: Insecticides, NOI, other than Poison, NMFC item 102120.

For highway and railroad shipment in the USA: Insecticides, NOI, other than Poison

For air and water shipment, and also road and rail other than in the USA: Flammable Liquids, n.o.s. (contains hydrocarbon solvent), 3. III, UN1993, NAERG Guide 128

MARPOL Designation: #1 Severe Marine Pollutant (permethrin 36.8%)

TSCA (Toxic Substances Control Act):

XV. REGULATORY INFORMATION

SARA Title III (Superfund Amendments and Reauthorization Act)

Section 302 Extremely Hazardous Substances (40 CFR 355): Not listed

Section 302.4 Reportable Quantity (RQ) (40 CFR 355): None

Section 311 Hazard Categories (40 CFR 370): Immediate, Delayed, Fire

Section 312 Threshold Planning Quantity (40 CFR 370): The threshold planning quantity for this product, if treated as a mixture, is 10,000 lb. This product contains the following ingredients with a TPQ of less than 10,000 lb.: None

Section 313 (40 CFR 372): This product contains the following ingredients subject to Section 313 reporting requirements: permethrin (36.8%)

CERCLA Reportable Quantity (RQ) (40 CFR Table 302.4): Not listed

COMMENTS: Australian Hazard Code: 3XE

XVI. OTHER INFORMATION

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