

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be consulted
for specific requirements.

U.S Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)
Bonide Total Pest Control (Outdoor)

ID # 4349

Date: April 3, 2001

Section I

Bonide Products, Inc.
6301 Sutliff Rd.
Oriskany, NY 13424

(800) 424-9300
(315) 736-8231

Section II - Hazardous Ingredients/Identity

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Permethrin 52645-53-1	None	None	None	13.30%

*Contains Petroleum Distillates

Section III - Physical/Chemical Ingredients

ODOR: Faint, mild	pH: 5.0-6.0	MELTING POINT: Not Available
APPEARANCE: Viscous yellow to brown liquid		SOLUBILITY (H ₂ O): 0.07 +- 0.02 ppm
VAPOR DENSITY: >1 (Air=1)	% VOLATILES: NA	SPECIFIC GRAVITY: 1.190 to 1.272 at 20°C
BOILING POINT: 198-200°C at 0.3 mm HG		VAPOR PRESSURE: 3.4 x 10 Torr at 25°C

Section IV - Fire and Explosion Data

FLASHPOINT: >105°F (closed cup) FLAMMABILITY LIMITS: UFL: N/A LFL: N/A
EXTINGUISHING MEDIA: Water fog, foam. DEGREE OF FIRE/EXPLOSION HAZARD: Slightly combustible. Overheated, sealed containers are an explosion hazard. Vapors which form inside empty containers may also present an explosion hazard during a fire. SPECIAL FIRE FIGHTING PROCEDURES: Isolate fire area. Evacuate downwind residents and all areas where fire seriously threatens the product containers. Wear full protective clothing including rubber boots, neoprene gloves and self-contained breathing apparatus. Attempt to keep drums cool. Do not breathe or contact smoke or vapors. CONDITIONS TO AVOID (INCOMPATIBILITY): Heat and fire. Thermal decomposition and burning may produce toxic by-products and an explosion hazard. HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and/or carbon dioxide. Chlorine and hydrogen chloride may be formed.

Section V - Reactivity Data

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

Section VI - Health Hazard Information

PRIMARY ROUTES OF ENTRY: Acute and chronic effects from overexposure may result from inhalation and ingestion. ACUTE EFFECTS FROM OVEREXPOSURE: Data available to date on human exposure suggests that permethrin does not produce skin sensations (feelings of numbing and tingling), although other pyrethroids have been known to cause these reactions. If they occur, these sensations subside and disappear within a few hours. Large, toxic doses administered to laboratory animals have produced central nervous system effects with symptoms that include diarrhea, salivation, bloody nose, tremors and intermittent convulsions. Overexposure of animals to permethrin via inhalation has also produced hyperactivity and hypersensitivity.

CHRONIC EFFECTS FROM OVEREXPOSURE: 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 is low and that the likelihood of oncogenic effects in humans is nonexistent or extremely low. Long terms 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 lack of genotoxicity has been demonstrated in mutagenicity testing with permethrin.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None presently known

CARCINOGENICITY: NTP: No IARC: No OSHA: No

Section VII – Health Hazard Information (cont'd.)

and that the likelihood of oncogenic effects in humans is nonexistent or extremely low. Long terms 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 lack of genotoxicity has been demonstrated in mutagenicity testing with permethrin.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None presently known

CARCINOGENICITY: NTP: No IARC: No OSHA: No

Section VIII – First Aid

EYES: Flush with water for at least 15 minutes. If irritation persists, obtain medical attention.

SKIN: Remove contaminated clothing and wash with soap and water immediately. Obtain medical attention.

INHALATION: Remove to fresh air. If breathing is difficult or if any discomfort persists, obtain medical attention.

INGESTION: Obtain medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN: Contains the pyrethroid insecticide permethrin and has low oral toxicity, moderate dermal toxicity and moderate eye irritation. Initial treatment is removal of exposure by washing, emesis or lavage and is followed by symptomatic and supportive care.

Section IX - Precautions for Safe Handling/Use

STORAGE AND HANDLING: Store in a cool, dry place and avoid excess heat. Store in original containers only. Carefully open containers. After partial use, replace bungs or cap and close tightly. Wash hands and other exposed skin surfaces thoroughly prior to smoking or consuming food or beverages. Shower after handling or applying the product. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

PROTECTIVE REQUIREMENTS: VENTILATION: Thoroughly ventilate all transport vehicles prior to unloading. Store in a cool, dry, well-ventilated place. General exhaust ventilation is considered sufficient.

WORK CLOTHING: Wear long-sleeved coveralls or uniform, cap, safety shoes and neoprene gloves.

EYE PROTECTION: Where potential of splashing exists, or contact with mist, protective safety glasses, goggles and face shield should be worn. A source of clean water for flushing the eyes should be nearby.

RESPIRATORY PROT.: For fires, use self-contained breathing apparatus only. For moderate vapor liquid mist exposure, use half face or full face air purifying respirators which are NIOSH/MSHA approved for pesticides.

GLOVES: Where chemical protective gloves made of neoprene when handling this product.

Section X - Environmental and Disposal Information

SPILL OR LEAK: Isolate and post spill area. Wear prescribed protective clothing and equipment. Keep material out of streams and sewers. Contain and absorb spilled material with a solid absorbent such as sand, cat litter, commercial clay or other suitable absorbent. Place in an approved drum and dispose of material following the method outlined below under "Waste Disposal". To decontaminate spill area, tools and equipment, wash with a suitable solution (e.g. organic solvent, detergent, bleach or caustic) and dispose of solution following the method outlined below under "Waste Disposal".

WASTE DISPOSAL: Open dumping or burning of this material is prohibited. An acceptable method of disposal is to burn in an incinerator in accordance with all local, state and federal environmental laws, rules, standards and regulations. Because acceptable methods of disposal may vary by location and because regulatory requirements may change, the appropriate regulatory agencies should be contacted prior to disposal. Steel containers which contained these materials must be crushed and disposed of in a sanitary landfill. Do not cut or weld steel containers.

KEEP OUT OF REACH OF CHILDREN**ABBREVIATION KEY**

N/A: NOT AVAILABLE OR APPLICABLE

N/E: NOT ESTABLISHED

ND: Not Determined

TLV: THRESHOLD LIMIT VALUE

TWA: TIME WEIGHTED AVG./8 HOUR WORKDAY

STEL: SHORT TERM EXPOSURE LIMIT

D.O.T.: DEPARTMENT OF TRANSPORTATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.