# SAFETY DATA SHEET

## SECTION 1: IDENTIFICATION

Product Name: **MasterLine Bifenthrin 7.9 Termiticide/Insecticide**
**Description:** Synthetic Pyrethroid Insecticide
EPA Reg. No: 73748-7

**Company Name and Address:**
**Univar Environmental Sciences**
11305 Four Points Drive
Bldg. 1, Suite 210
Austin, Texas 78726

**Emergency Response Telephone Numbers**
For Spills Call: 1-(800)-424-9300
For Medical Emergencies Call: 1-(866)-674-4334
For Other Emergencies Call: 1-(952)-653-3523

## SECTION 2: HAZARD IDENTIFICATION

**Classification in accordance with regulation HCS 29CFR §1910.1200**

**WARNING**
Harmful if swallowed
Harmful if inhaled
Toxic to fish and aquatic invertebrates.
Toxic to bees exposed to direct treatment on blooming crops or weeds.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| **INGREDIENTS:** | **(% w/w)** |
|---|---|
| Bifenthrin (CAS Reg. No. 82657-04-3) [1α,3α-(Z)]-(±)-(2-methyl[1,1'-biphenyl]-3-yl) methyl 3-2(-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate [1] | 7.9% |
| Inert Ingredients | 92.1% |

[1] *cis/trans* ratio: minimum 97% (±) *cis* and maximum 3% *trans*

## SECTION 4: FIRST AID MEASURES

**FIRST AID**

**If swallowed** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. 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 by mouth-to-mouth if possible. Call a poison control center or doctor for further 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 in eyes** Hold eye open and rinse slowly and gently with water 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this product, contact the National Pesticide Information Center, 1-800-858-7378, Monday-Friday, 7:30 AM-3:30 PM PST. You may also contact the National Poison Control Center, 1-800-222-1222, day or night, for emergency medical treatment information.

**Note to Physician** - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

## SECTION 5: FIRE-FIGHTING MEASURES

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:**

| Category | Rating |
|---|---|
| Health | 1 |
| Flammability | 0 |
| Reactivity | 0 |

Flash Point: Non-flammable (water-based)

Method Used: N/A

## SECTION 5: FIRE-FIGHTING MEASURES (CONT'D)

| | |
|---|---|
| Extinguishing Media: | Foam, $CO_2$, or dry chemical is preferred. Water spray or water fog only if necessary. Contain all runoff. |
| Fire & Explosion Precautions: | Foam fire-extinguishing system is preferred because uncontrolled water can spread possible contamination. Do not allow fire-fighting water to escape into waterways or sewers. Toxic irritating gases can be formed. |
| Fire-Fighting Equipment: | Use positive-pressure self-contained breathing apparatus and full protective equipment. |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**SPILLS OR LEAKS:** Wear protective clothing as described in Section VII (Personal Protection and Precautions) of this MSDS. Absorb liquid with material such as clay, sand, sawdust, or dirt. Sweep up and place in a suitable container for disposal and label the contents. Area can be washed down with a suitable solution of bleach or soda ash and an appropriate alcohol (methanol, ethanol, or isopropanol). Follow this by washing with a strong soap and water solution. Absorb any excess liquid as indicated above, and add to the disposal container. Keep product, contaminated materials and wash water out of streams and sewers. Wash exposed body areas thoroughly after handling.

## SECTION 7: HANDLING AND STORAGE

Keep out of reach of children. Do not contaminate water, food or feed by storage or disposal. Do not apply water-based dilutions of Masterline Bifenthrin 7.9 Termiticide/Insecticide to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

**HANDLING:** Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling this product.

**STORAGE:** Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE GUIDELINE(S):**

| MATERIAL: | OSHA PEL | ACGIH TLV |
|---|---|---|
| Active Ingredients: Bifenthrin | Not established | Not established |
| Inert Ingredients: | Not Established | Not Established |

**VENTILATION:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guideline. Ventilate all transport vehicles prior to unloading.

**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, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient.

All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

In addition, all pesticide handlers must wear a respiratory protection device[1] when working in a non-ventilated space.

[1]Use one of the following Mine Safety and Health Administration (MSHA)/National Institute for Occupational Safety and Health (NIOSH) air purifying respirator types with approval number prefixes: TC-23C, TC-21C, TC-19C, TC-13F and TC-14G, or a NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Color: | White Opaque |
| Physical State: | Liquid |
| Odor: | Mild Chemical |
| Density: | 8.48 lbs/gal (1.016 gm/cm$^3$) |
| Solubility: | Disperses in water |
| Viscosity: | 60 cps @ 25ºC |
| pH: | 6.45 |
| Stability: | Stable |

## SECTION 10: STABILITY AND REACTIVITY

| | |
|---|---|
| Conditions to Avoid: | Excessive heat and fire. |
| Stability: | Stable. |
| Hazardous Decomposition: | Under fire conditions carbon dioxide, carbon monoxide, chlorine, fluorine, hydrogen chloride, and hydrogen fluoride can be formed. |
| Hazardous Polymerization: | Will not occur. |

## SECTION 11: TOXICOLOGICAL INFORMATION

**EYE:** Practically non-irritating to the eyes.

**SKIN CONTACT:** Practically non-irritating to the skin. May cause slight skin irritation with prolonged or repeated contact. Skin sensations such as rashes, numbing, burning, or tingling may occur in certain individuals. These skin sensations are reversible and usually subside within 12 hours.

**SKIN ABSORPTION:** The acute dermal toxicity is considered to be low. The dermal $LD_{50}$ for rabbits is greater than 5050 mg/kg.

**INGESTION:** The acute oral toxicity is considered to be moderate. The oral $LD_{50}$ for female rats is 310 mg/kg. Small amounts that might be swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause serious injury, even death.

**INHALATION:** The acute inhalation toxicity is considered to be low. The inhalation $LC_{50}$ for rats is greater than 2.65 mg/l for 4 hours.

**SYMPTOMS:** Symptoms of excessive exposure by oral and inhalation routes include bleeding from the nose, tremors, and convulsions.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** Excessive exposure may produce effects on the nervous system such as tremors and convulsions, however, this product does not cause delayed neurotoxicity. Other laboratory reports indicate effects on the mucous membranes based on bloody discharge from the nose.

**CANCER INFORMATION:** Chronic feeding studies with bifenthrin in laboratory animals resulted in a slight increase in the incidence of urinary bladder tumors at the highest dose tested in male mice. These results were considered as equivocal and not a clear compound-related effect. The doses that produced this oncogenic effect in laboratory animals, greatly exceeds human exposure levels for the recommended use of this product. Consequently, the oncogenic potential in humans is extremely weak or non-existent. Bifenthrin is not classified as a carcinogen by IARC, NTP, OSHA, and ACGIH. The EPA has classified

## SECTION 11: TOXICOLOGICAL INFORMATION (CONT'D)

bifenthrin as a Group C possible human carcinogen based on the limited evidence of carcinogenicity in animals and in the absence of human data.

**TERATOLOGY (BIRTH DEFECTS):** The active ingredient in this product did not cause birth defects in laboratory animal studies.

**REPRODUCTIVE EFFECTS:** Bifenthrin did not interfere with fertility in animal reproduction studies.

**MUTAGENICITY (EFFECTS ON GENETIC MATERIAL):** Based on a number of *in vivo* and *in vitro* studies, it was concluded that the active ingredient in this product are not mutagenic.

## SECTION 12: ECOLOGICAL INFORMATION

**ENVIRONMENTAL SUMMARY:** This pesticide is extremely toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

**PHYSICAL ENVIRONMENTAL PROPERTIES:** Bifenthrin is moderately stable in soil under aerobic conditions and at a wide range of pH with a half-life ranging from 65 to 125 days depending on the soil type. Bifenthrin has a high Log Pow that is greater than 6, it has an affinity to bind with organic matter, and it is not mobile in soils; consequently, it is not likely to contaminate ground water. There is a potential for bifenthrin to bioaccumulate, with it having a bioaccumlation factor of 11,750.

**ENVIRONMENTAL TOXICOLOGY:** Bifenthrin is highly toxic to fish and aquatic arthropods, with $LC_{50}$ values ranging from 0.0038 to 17.8 µg/L. In general, aquatic arthropods are the most sensitive species. Bifenthrin has no effect on mollusks at its limit of water solubility. Exercise extreme care to avoid contamination of aquatic environments. Bifenthrin is only slightly toxic to both water fowl and upland game birds with $LD_{50}$ values ranging from 1,800 mg/kg to > 2,150 mg/kg.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Pesticide Disposal:** Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Handling: Plastic Container: Nonrefillable Container.** Do not reuse or refill container. Offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

**Containers 5 gallons or less**: 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 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. Once cleaned, offer for recycling if available.

**Containers larger than 5 gallons:** 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 back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other 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. Once cleaned, offer for recycling or reconditioning if appropriate.

**Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable Container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

## SECTION 14: TRANSPORTATION INFORMATION

**U.S. SURFACE FREIGHT CLASS:** This product is not subject to DOT regulations as a hazardous material when shipped in non-bulk packages.

**OTHER SHIPPING INFORMATION:** This product is not regulated for transport in the USA when shipped via highway or railroad in non-bulk packages. Describe using the "U.S. Surface Freight Class" above, which applies in all cases.

**SPECIAL NOTE:** The following applies to shipments over water, and shipments in bulk packages:

**PROPER SHIPPING NAME:** Environmentally hazardous substance, liquid, n.o.s. (bifenthrin 7.9%)

**HAZARD CLASS OR DIVISION:** 9

**IDENTIFICATION NUMBER:** UN 3082

**PACKING GROUP:** III

**MARINE POLLUTANT:** Bifenthrin is a severe marine pollutant

## SECTION 15: REGULATORY INFORMATION

**FIFRA INFORMATION:**
This chemical is a pesticide product registered by the 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, and for the workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

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

**SARA 313 INFORMATION:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

| CHEMICAL NAME | CAS NUMBER | CONCENTRATION |
|---|---|---|
| Bifenthrin | 82657-04-3 | 7.9% |

## SECTION 15: REGULATORY INFORMATION (CONT'D)

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND):** This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

Category:

| Chemical Name | CAS Number | RQ | % in Product |
|---|---|---|---|
| Bifenthrin | 82657-04-3 | not listed | 7.9% |

## SECTION 16: OTHER INFORMATION

**SDS Date:** May 5, 2015

This document is prepared pursuant to the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)), revised in 2012. In addition, other substances not "Hazardous" per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, and local laws and regulations. See SDS for health and safety information.