

# MATERIAL SAFETY DATA SHEET

Tenkoz Cypermethrin Insecticide

Revision: 3

Date Issued: 01/15/07

## SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Company:** Tenkoz Inc.  
100 North Point Center East  
Alpharetta, GA 30022  
**Product Information:** www.tenkoz.com  
**Product Name:** Tenkoz Cypermethrin Insecticide  
**Product Use:** Insecticide

**FOR MEDICAL EMERGENCIES, contact the National Pesticide Information Center at 1-800-858-7378**  
**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300**

## SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS#</u>	<u>WT. %</u>	<u>PEL/TLV</u>
Cypermethrin* [(+/-)α-cyano(3-phenoxyphenyl)methyl (+/-) cis,trans-3-(2,2-dichloroethenyl)-2,2- dimethylcyclopropanecarboxylate]	52315-07-8	31.6	None
Mineral Oil	64742-55-8	<24.0	None
Aromatic hydrocarbons	64743-95-6	<31.0	
Surfactant blend	proprietary	<16.0	

\* Active Ingredient

## SECTION 3 HAZARDS IDENTIFICATION

**WARNING STATEMENTS:** Symptoms of overexposure include lethargy, continuous muscle contractions, convulsions, incoordination, tearing eyes and hair loss.

**NOTE TO PHYSICIAN:** This product has moderate oral and low dermal and inhalation toxicity. It is expected to be mildly irritating to the eyes and skin. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Do not administer milk, cream or other substances that contain vegetable or animal fats, as they enhance absorption. Central nervous system stimulation should be controlled with sedation by, e.g. barbiturates. Contains aromatic hydrocarbons that may produce a severe pneumonitis is aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

### POTENTIAL ADVERSE HEALTH EFFECTS:

**Eye Contact:** May be mildly irritating to the eyes, excessive tearing may be a result.  
**Skin Contact:** The most likely route of entry. May produce skin sensations such as numbing, burning or tingling. These are reversible within 12 hours.  
**Ingestion:** Contact a physician if material is ingested  
**Inhalation:** Contact a physician if material is inhaled and breathing is difficult.

## SECTION 4 FIRST AID MEASURES

### 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 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 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.

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## IF SWALLOWED:

Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

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## SECTION 5 FIRE FIGHTING MEASURES

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**FLASH POINT AND METHOD:** >50.0 °C (Pensky-Martens Closed Cup) (>122° F)  
**FLAMMABLE LIMITS:** None established  
**EXTINGUISHING MEDIA:** Foam, CO<sub>2</sub> or dry chemical. Soft stream water fog only if necessary. Contain all runoff.  
**EXPLOSION HAZARDS:** Moderately combustible. When heated above the flash point, this material releases vapors which, when mixed with air, can burn or be explosive. Heat and fire may result in thermal decomposition and the release of carbon monoxide, carbon dioxide, hydrogen cyanide, chlorine and hydrogen chloride.  
**FIRE FIGHTING PROCEDURES:** Isolate fire area. Evacuate downwind. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke, gases or vapors generated. Keep non-essential personnel away from the immediate fire area, and out of any fall-out or run-off areas.

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## SECTION 6 ACCIDENTAL RELEASE MEASURES

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**RELEASE NOTES:** Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, “Exposure Controls/Personal Protection”. Keep unprotected persons and animals out of area.

Keep material out of lakes, streams, ponds, and sewer drains. Dike to confine spill and absorb with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.

To clean and neutralize spill area, tools and equipment, wash with a suitable solution of caustic or soda ash, and an appropriate alcohol (i.e., 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 13, “Disposal Considerations”.

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## SECTION 7 HANDLING AND STORAGE

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**GENERAL PROCEDURES:** Store in a cool, dry, well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. Always wash thoroughly after handling.

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## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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**ENGINEERING CONTROLS:** Use local exhaust at all process locations where vapor or mist may be emitted. Ventilate all transport vehicles prior to unloading.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** For splash, mist or spray exposure, wear chemical protective goggles or a face shield.

**RESPIRATORY:** For splash, mist or spray exposure, wear, as a minimum, a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

**PROTECTIVE CLOTHING:** Depending upon concentrations encountered, wear coveralls or long sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body covered barrier suit, such as a PVC suit. Leather items- such as shoes, belts and watch bands – that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

**Personal Protective Equipment: [40 CFR 170]:** Note, the following PPE requirements address handler/applicator requirements under FIFRA and may differ from what is felt necessary to address clean up needs during formulation/manufacturing or other times of involvement with the product. Applicators and other handlers must wear: coveralls over short-sleeved shirt and short pants, chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber or Viton, shoes plus socks, and protective eyewear.

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## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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**ODOR:** Aromatic odor  
**APPEARANCE:** Yellow liquid  
**pH:** 4.71  
**SOLUBILITY IN WATER:** Emulsifies in water  
**SPECIFIC GRAVITY:** 0.971  
**WEIGHT PER VOLUME:** 8.095 lbs/gal

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## SECTION 10 STABILITY AND REACTIVITY

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**CONDITIONS TO AVOID:** Excessive heat and fire.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxides, carbon dioxide, hydrogen cyanide, chlorine and hydrogen chloride  
**STABILITY:** Stable.  
**POLYMERIZATION:** Will not occur.

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## SECTION 11 TOXICOLOGICAL INFORMATION

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**ACUTE DERMAL LD<sub>50</sub>:** >2,000 mg/kg (rabbit)  
**ACUTE ORAL LD<sub>50</sub>:** >355 mg/kg  
**ACUTE INHALATION LC<sub>50</sub>:** >2.02 mg/L (4 hrs, rat)  
**EYE IRRITATION:** moderately irritating  
**DERMAL IRRITATION:** moderately irritating  
**DERMAL SENSITIZATION:** not a sensitizer

**ACUTE EFFECTS FROM OVEREXPOSURE:** This product has moderate oral, and low dermal and inhalation toxicity. It is expected to be mildly irritating to the eyes and skin. Signs of toxicity in laboratory animals included hypertonicity, ataxia, lethargy, convulsions, gasping, salivation, dyspnea and alopecia. Experience to date indicates that contact with this product may produce skin sensations such as numbing, burning and tingling. These sensations are reversible and usually subside within 12 hours. Inhalation of aromatic hydrocarbon vapors may cause dizziness, disturbances of vision, drowsiness, respiratory irritation and eye, skin and mucous membrane irritation. Vomiting after ingestion of this product may cause aspiration of aromatic hydrocarbons into the lungs that may result in fatal pulmonary edema. Excessive exposures to butanol liquid or vapors result in contact dermatitis and irritation of the mucous membranes.

**CHRONIC EFFECTS FROM OVEREXPOSURE:** No data available for the formulation. In studies with laboratory animals, cypermethrin did not cause reproductive toxicity, teratogenicity, neurotoxicity or carcinogenicity in male and female rats and male mice. Cypermethrin caused an increase in benign lung tumors in female mice at 1600 ppm in the diet. The EPA concluded on a weight of evidence approach that cypermethrin represents a low oncogenic potential to female mice at this dose level (approximately 228 mg/kg/day). Liver enlargement is often noted in laboratory animals that have ingested large doses of cypermethrin during their life span. An overall absence of genotoxicity has been demonstrated in tests of mutagenicity, DNA damage and chromosome aberrations. Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage. Inhalation of xylene vapors at high doses has also resulted in an increased incidence of malformations and decreases in fetal weight in laboratory animals. Damage from xylene may be potentiated by alcohol. Disturbances in hearing and balance have been reported in workers exposed to butanol vapors.

### CARCINOGENICITY:

**IARC:** Not listed.  
**NTP:** Not listed.  
**OSHA:** Not listed.  
**OTHER (ACGIH):** Not listed.

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## SECTION 12 ECOLOGICAL INFORMATION

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**ENVIRONMENTAL DATA:** Cypermethrin is rapidly degraded in soil with a half-life of 2 to 4 weeks. It is readily hydrolyzed under basic conditions; hydrolysis half-life period can be 20 to 29 days. Cypermethrin has a high affinity for organic matter and a Log Pow of 5.0; yet, because of the ease with which the material undergoes degradation, it has a very low potential for bioconcentration (BCF = 17), and is not mobile in soil.

**ECOTOXICOLOGICAL INFORMATION:** Cypermethrin is considered extremely toxic to fish and aquatic arthropods, and has LC50 values which range from 0.004 ug/L to 3.6 ug/L. The aquatic arthropods tended to be some of the more sensitive species. Care should be taken to avoid contamination of the aquatic environment. Cypermethrin is slightly toxic to birds and oral LD50 values are greater than 10,248 mg/kg.

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## SECTION 13 DISPOSAL CONSIDERATIONS

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**DISPOSAL METHOD:** Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to instructions, an acceptable method of disposal is to incinerate accordance with local, state and national environmental laws, rules, standards and regulations. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal.

**EMPTY CONTAINER:** Non-returnable containers which held this material should be cleaned prior to disposal, by triple rinsing. Containers which held this material may be cleaned by being triple rinsed, and recycled, with rinsate being incinerated. Do not cut or weld metal containers. Vapors that form may create an explosion hazard

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## SECTION 14 TRANSPORT INFORMATION

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**PROPER SHIPPING NAME:** Pyrethroid pesticide, liquid, toxic, flammable  
**HAZARD CLASS:** 6.1, 3  
**UN/NA NO.:** 3351  
**PACKING GROUP:** II

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## SECTION 15 REGULATORY INFORMATION

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**SARA, Title III Section 313: 1,2,4-trimethylbenzene (CAS#: 1330-20-7): 6%:**  
Section 311/312: Acute Health Hazard, Delayed Health Hazard, Fire  
Proposition 65: Not applicable  
Reportable Quantity (RQ): None  
Threshold Planning Quantity (40 CFR Part 370): As a mixture 10,000 pounds,  
CERCLA: Xylene, RQ = 100 lbs; Ethylbenzene: RQ = 1000 lbs; 1-butanol, RQ = 5000 lbs; Cumene, RQ = 5000 lbs.

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## SECTION 16 OTHER INFORMATION

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THIS INFORMATION IN THIS MSDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT TENKOZ INC. TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, TENKOZ INC. EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE. This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Revision 3: New acute toxicity data.