

# MATERIAL SAFETY DATA SHEET

SpringStar Inc.  
MOSQUITO Trap-N-Kill

## SECTION I COMPANY AND PRODUCT INFORMATION

Company:  
SpringStar Inc.  
PO Box 2622  
Woodinville, WA 98072  
Phone: 800-769-1043

PRODUCT NAME: MOSQUITO Trap-N-Kill

ACTIVE INGREDIENT: Dimethyl 2,2-dichlorovinyl phosphate

CAS #: 62-73-7

SYNONYMS: DDVP, Dichlorvos

CHEMICAL FAMILY: Organophosphate ester

FORMULA:  $C_4H_7Cl_2O_4P$

GENERAL USE: Used as a toxicant in insect traps.

PRODUCT DESCRIPTION: Controlled release laminated polymeric dispenser containing 10% DDVP by weight. 590 mg of DDVP is incorporated into the a 1" X 4" plastic strip or 73.75 mg of DDVP into a 1" X 1/2" plastic strip. MOSQUITO Trap-N-Kill insecticidal strips are registered for use in insect traps only.

EPA REGISTRATION NO. 8730-50

Current revision date: January 7, 2014

## SECTION II HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH = 2  
FLAMMABILITY = 0  
REACTIVITY = 0

POISON

## SECTION III

### COMPOSITION/INFORMATION ON THE ACTIVE INGREDIENT, DICHLORVOS

Component	Wt %	Hazard	OSHA PEL *	ACGIH TLV *
DDVP	10%	Poison	1.0mg/m <sup>3</sup> *	0.1 mg/m <sup>3</sup> *
Related Compounds	0.75%			

\*Exposure Limits 8 hrs TWA (mg/m<sup>3</sup>)

## Hazards Identification

### EMERGENCY OVERVIEW

DDVP is poisonous if swallowed, inhaled or absorbed through skin and eyes. Rapidly absorbed through skin. Repeated inhalation or skin contact may without symptoms, progressively increases susceptibility to DDVP poisoning.

Toxic to fish, birds and other wildlife. Do not contaminate bodies of water.

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### Potential Health Effects

**ROUTES OF ENTRY:** Ingestion, inhalation, and absorption through the eye or skin are all possible routes of entry for this active ingredient. Exposure by any of the routes may cause acute cholinesterase depression. Severe cholinesterase depression may be fatal.

**SIGNS OF ACUTE OVEREXPOSURE:** Acute Cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive salivation and tearing, constricted pupils, blurred vision, tightness in chest weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur.

**SIGNS OF CHRONIC OVEREXPOSURE:** Repeated exposures to small doses of DDVP and other organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

**CARCINOGENICITY:** EPA under its 199 proposed Guidelines for Carcinogen Risk Assessment has classified DDVP as having "suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential". IARC lists DDVP (Dichlorvos) as being possibly carcinogenic to humans (Group 2B). CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.

## SECTION IV FIRST AID MEASURES

**DDVP IS A CHOLINESTERASE INHIBITOR. A PHYSICIAN SHOULD BE CONTACTED IN ALL CASES OF DDVP AND ITS FORMULATIONS**

After prolonged storage (6 months or more) a small amount of liquid may form on the strip. Avoid contact with eyes and mouth.

**IF IN EYES:** Immediately flush the eyes with copious amounts of clear, cool running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. Contact a physician immediately. If there will be delay in getting medical attention, rinse the eyes for at least another 15 minutes.

**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 SWALLOWED:** Call a poison control center or doctor immediately for treatment. Have the 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. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**IF ON SKIN:** Immediately take off contaminated clothing. Flush skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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**NOTE TO PHYSICIANS:** This is an Organophosphate (OP) Insecticide. Do not wait for laboratory confirmation to treat patient with strong clinical evidence of poisoning. In the USA and other countries, contact your local or national poison control center for more information.

Do Not handle the patient without the following protective equipment in place: chemical resistant gloves and apron (preferably nitrile). Remove contaminated clothing and do not reuse without thorough cleaning with detergent and hot water. Dispose of heavily contaminated clothing including shoes as a hazardous waste.

Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice. Moderately severe poisoning: use 0.4-2.0 mg in adults or 0.05 mg/kg in children. Repeat every 15 minutes until atropinization is achieved. Severe poisoning may require larger doses. Cholinergic toxicity may recur as atropinization wears off; monitor patient closely. Draw blood for RBC and plasma cholinesterase. In addition, Pralidoxime (2-PAM) is indicated during the first 36 hours in severe poisonings. Slow IV administration (no less than 2 minutes) of 1 g in adults or 20-50 mg/kg in children may be repeated in 1 to 2 hours if muscle weakness, twitching and/or respiratory depression persist. Avoid morphine, aminophylline, phenothiazines, reserpine, furosemide and ethacrynic acid.

Bathe and shampoo contaminated skin and hair. If ingested, empty stomach; activated charcoal is useful to further limit absorption. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small children) followed by water (2 glasses for adults, 1 glass for children) is indicated. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

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#### SECTION V PHYSICAL PROPERTIES of Vaportape II

Bulk Density:	1.12 gm/cc
Melting Point	NA
Freezing Point	NA
Percent Volatile	NA
Odor Description	Mild chemical
Vapor Pressure (20C, mmHG)	NA
Solubility in Water	insoluble
Specific Gravity/25C	NA
Boiling Point	NA
pH	NA
Vapor Density (Air=1)	NA

#### SECTION VI FIRE HAZARD INFORMATION

Flash Point	NA
Flammable Limits in Air	NA
Extinguishing Media:	Carbon Dioxide. Foam
Special Fire Fighting Procedures:	If involved in fire, use air-supplied equipment. Wear complete fire fighting gear, including protective gloves, eye protection and self contained breathing apparatus.

**DO NOT INHALE VAPORS**

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Dichlorvos emits acrid smoke and fumes of HCL, phosphorous oxides and carbon oxides when heated to decomposition. The polymeric dispenser may produce CO, CO<sub>2</sub>, HCL and CL<sub>2</sub> when burned.

Contact with unburned vaporized dichlorvos can be hazardous to health.

## SECTION VII

### STABILITY AND REACTIVITY INFORMATION

STABILITY: This product is stable under normal use and storage conditions.

HAZARDOUS POLYMERIZATION: This product will not polymerize.

INCAPATIBLE SUBSTANCES: Avoid strong oxidizers, strong acids, strong bases, heat and sources of ignition.

## SECTION VIII

### TOXICOLOGICAL INFORMATION

INGESTION:	Oral LD <sub>50</sub> (rat)	80/56 mg/kg (male/female)
INHALATION:	Inhalation LC50 (rat)	>198 mg/m <sup>3</sup> (4 hr, head only, vapor)
DERMAL:	Skin LD 50 (rabbit)	205 mg/kg
IRRITATION:	Eye irritation:	Irritant
	Skin irritation	Irritant
SENSITIZATION:	Skin sensitization: (guinea pig)	Possible Sensitizer

TERATOGENICITY: No evidence of teratogenicity in laboratory animals

MUTAGENICITY: No clear evidence of *in vivo* mutagenicity activity in mammalian assay systems.

CARCINOGENICITY: Two laboratory studies have shown a low incidence of forestomach tumors in the mouse and mononuclear cell leukemia in the F344 rat. EPA under its 1999 proposed evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential". IARC lists DDVP (Dichlorvos) as being possibly carcinogenic to humans (group 2B).

CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.

REPRODUCTIVE TOXICITY: Reproductive effects have only been seen at a dose level which produced a generalized toxicity in the rat.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: No data are available.

## SECTION IX

### SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Place unpouched strips in a tightly sealed container. Decontaminate the area with dilute ammonia (less than 5% solution) and detergent. Flush the area with water. Absorb the rinse water using an absorbent such as, but not limited to clay, sawdust, straw or kitty litter and sweep into an open drum. Close the drum and dispose as hazardous waste. Do not reuse empty containers. Check with state and local authorities for disposal options.

WASTE DISPOSAL METHOD: For strips exposed in traps for 12 weeks or more wrap the strip in paper and discard in trash.

## SECTION X

### PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Usually none required under normal usage, but use of respirators fitted with filters suitable for pesticides, organic vapors and acids are recommended for prolonged handling

EYE PROTECTION: Safety glasses such as goggles

VENTILATION: Local exhaust is recommended

PROTECTIVE GLOVES: Chemical resistant gloves are recommended for handling

OTHER PROTECTIVE EQUIPMENT: None under normal usage.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions with the Vaportape product. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

## SECTION XI HANDLING AND STORAGE PRECAUTIONS

**CAUTION:** After prolonged storage (6 months) a small amount of liquid may form on the strip. Avoid contact with eyes and mouth.

**GENERAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Store in sealed pouches in a cool, dry place. To maintain product integrity protect from high temperatures. Keep container closed. Wear protective equipment described above if exposure conditions warrant. Do not allow to contaminate water source food or feed. Vaportape strips that have been opened and are transported in a closed confined space such as a car or truck could cause exposure to DDVP. Ventilate appropriately.

## SECTION XII REGULATORY INFORMATION

**US FEDERAL REGULATIONS:** This product is registered under EPA/FIFRA Regulations. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions.

**CANADIAN REGULATIONS:** This product is registered under the Pest Control Product Act of Canada. It is a violation of Canadian Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions.

### SARA TITLE III DATA

#### Section 311 & 312 Hazard Categories

Immediate Health Hazard	Yes
Delayed Health Hazard	Yes
Fire Hazard:	No
Reactive Hazard	No
Sudden Pressure Release Hazard	No

Section 302 Extremely Hazardous substances: DDVP (Dichlorvos, 62-73-7)

Section 313 Toxic Chemicals: DDVP (Dichlorvos, 62-73-7)

## SECTION XIII DISCLAIMER

It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We reserve the right to revise material safety data sheets periodically as new information becomes available. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. SpringStar assumes no responsibility for any damages, losses injuries or consequential damages which may result from the use or misuse of this product and recipient assumes all such risks.

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Approved By: Michael Banfield