



# Material Safety Data Sheet

## UltraTec® 5 SC MUP

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.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, and storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** UltraTec® 5 SC MUP  
**MSDS IDENTIFICATION NO.:** ENV-0093  
**CHEMICAL NAME:** Mixture; active ingredient: deltamethrin  
**EPA REGISTRATION NUMBER:** 73049-391  
**PRODUCT DESCRIPTION:** This product is intended for formulation use only. Insecticide

UltraTec is a registered trademark of Valent BioSciences Corporation.

### MANUFACTURER

Valent BioSciences Corporation  
870 Technology Way  
Libertyville, IL 60048

### EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY OR SPILL (24 hr):  
Within the United States: (877) 315-9819  
Outside the United States: (651) 632-6184

### PRODUCT INFORMATION

ENVIRONMENTAL SCIENCE PRODUCTS:  
(866) 822-3731  
[www.valentbiosciences.com](http://www.valentbiosciences.com)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight/Percent	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Deltamethrin* (52918-63-5)	4.75	None	None	TWA (45mcg/m <sup>3</sup> ); STEL (100 mcg/m <sup>3</sup> )
Water (7732-18-5)	> 70	None	None	None
Propylene glycol (57-55-6)	15.19	None	None	None

\* Active Ingredient - Synthetic Pyrethroid

Other ingredients, which are maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identity is withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling **(877) 315-9819** (within the United States) or **(651) 632-6184** (outside the United States) at any time.

**Emergency Telephone:** In US (877) 315-9819; Outside US (651) 632-6184  
**REVISION NUMBER:** 1

**MSDS NO.:** ENV-0093  
**REVISION DATE:** 08/20/2008

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

##### WHITE LIQUID

**CAUTION**

- Harmful if inhaled.
- Extremely toxic to fish and bees.
- Keep out of reach of children

#### POTENTIAL HEALTH EFFECTS

**Acute Toxicity (Primary Routes of Exposure):** Technical material. Inhalation, ingestion, eye and skin contact.

**Signs and Symptoms of Systemic Effects:** Dizziness, headache, listlessness, nausea and vomiting, epigastric pain, muscular fasciculation of the limbs, unconsciousness, convulsions and coma (very high doses).

**Acute Eye Contact:** Based on an evaluation of the ingredients and/or similar products, this product may be a mild eye irritant. Adverse health effects resulting from an exposure may include redness, swelling and pain which could last for an extended period of time.

**Acute Skin Contact:** Based on an evaluation of the ingredients and/or similar products, this product may cause slight skin irritation. The expected adverse health effects resulting from an exposure may include redness and swelling. This product may be slightly toxic when absorbed through the skin. This product is not expected to cause allergic skin reactions.

This product contains a pyrethroid. Skin contact with pyrethroids can result in a temporary burning, tingling or itching sensation.

**Acute Ingestion:** Based on an evaluation of the ingredients and/or similar products, this product may be mildly toxic when ingested. Ingestion may present an aspiration hazard. Ingestion may also cause nausea, vomiting and diarrhea.

**Acute Inhalation:** Based on an evaluation of the ingredients and/or similar products, this product is expected to be slightly toxic when inhaled. Exposure to high concentrations in the air may result in respiratory irritation. Signs and symptoms may include, but not be limited to, nasal discharge, sore throat, coughing and difficulty in breathing.

**Chronic Toxicity (including cancer):** This product is not listed as a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or ACGIH.

**Potentially Aggravated Medical Conditions:** Individuals with allergy history or pre-existing dermatitis should use extra precautions in handling this product.

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11. For Regulatory Information, refer to Section 15.

#### 4. FIRST AID MEASURES

**EMERGENCY NUMBER: within the United States (877) 315-9819;  
outside the United States (651) 632-6184**

**EYE CONTACT:**

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.

**SKIN CONTACT:**

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.

**INGESTION:**

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 poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**INHALATION:**

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.

**NOTES TO PHYSICIAN:**

This product is a synthetic pyrethroid pesticide. If ingested and vomiting has not occurred, emesis should be induced with supervision. Keep patient's head below hips to prevent aspiration. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered. If localized paresthesia develops, the site should be thoroughly washed with soap and water. Cold cream can be applied to help diminish the effect.

Do not administer milk, cream or other substance containing vegetable or animal fats, which enhance the absorption of lipophilic substances.

#### 5. FIRE FIGHTING MEASURES

<b>FLASH POINT:</b>	> 199° F (> 93° C)
<b>FLASH POINT METHOD:</b>	TCC
<b>EXTINGUISHING MEDIA:</b>	Carbon dioxide, dry chemical, foam, or water.
<b>NFPA RATING:</b>	
Health:	1
Flammability:	1
Reactivity:	0
Special:	--

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

**FIRE & EXPLOSION HAZARDS:** Closed containers exposed to heat from fire may build pressure and explode. Do not use this product in or on electrical equipment due to possibility of shock hazard.

**FIRE FIGHTING INSTRUCTIONS:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Keep upwind. Isolate hazard area. Avoid inhalation of smoke and fumes. Use water or foam to reduce fumes. Do not touch spilled material. If possible, move containers from area. Extinguish only if flow can be stopped. Use flooding amounts of water as a fog. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors.

**HAZARDOUS COMBUSTION PRODUCTS:** May form toxic materials: Carbon dioxide, carbon monoxide, various hydrocarbons, etc.

## 6. ACCIDENTAL RELEASE MEASURES

### VALENT BIOSCIENCES EMERGENCY PHONE NUMBER:

WITHIN THE UNITED STATES: (877) 315-9819

OUTSIDE OF THE UNITED STATES: (651) 632-6184

### OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION

#### If it is safe to do so:

- Evacuate non-essential personnel from the area to prevent human exposure.
- Remove all sources of ignition.
- Ventilate area, especially low areas where vapors may accumulate.
- Stop the source of the spill. Contain the spill to prevent further contamination of the soil, surface water, or ground water.
- May produce slippery conditions.

**GENERAL AND DISPOSAL:** Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the adverse effect of the spill. For additional spill response information refer to the **North American Emergency Response Guidebook**. Ensure that the disposal is in compliance with all Federal, State, Provincial, and local regulations, (see Section 15 for applicable RCRA Number, if any). Refer to Section 14 for applicable Reportable Quantity (RQ) and other regulatory requirements.

#### FOR SPILLS OR LEAKS:

##### CONTAINMENT:

**Small spills:** Absorb with an inert absorbent material such as sand, granular clay, sawdust, Fuller's earth, etc. and dispose of in trash. Place in an approved chemical waste container for disposal. Where possible, container should be oriented to prevent further leakage. Do not allow spilled material to enter any body of water. Drum should be placed in a recovery drum for further movement or transport.

**Large Spills:** Ventilate area. Stop leak if you can do so without coming into contact with spilled material. Dike far ahead of the spill for later disposal. All equipment used to clean up spill should be grounded. Prevent entry into waterways, sewers, basements, or confined areas. Inform appropriate authorities immediately if contamination occurs. Pour decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to reach for 10 minutes. Alternatively, pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Place in an approved drum, but do not seal the drum for 48 hours to avoid possible pressure build-up. Neutralize spill residue with decontaminant solution. Cover with absorbent material. Remember, adding an absorbent material does not remove toxic, corrosive or flammable hazard. Place residue in a closed container. Place in a metal container. Seal the container. Dispose of collected material as soon as possible.

**CLEANUP:** Rinse spill area with small amount of soapy water. Contain and absorb the rinsate with inert absorbents and place into the same disposal container. Area can be washed with water to remove the last trace of residue. Do not allow water to contaminate water supplies or sewers.

## 7. HANDLING AND STORAGE

#### END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

**HANDLING PRECAUTIONS:** Harmful if inhaled. Avoid breathing vapors or spray mist. Do not get on skin or clothing. Skin contact may result in a transient tingling sensation and reddening of the skin. Avoid contamination of feed and foodstuffs.

Do not use this product in or on electrical equipment due to possibility of shock hazard.

**STORAGE:** Store product in a cool, dry area away from children and pets. Do not transport or store below 32°F. Do not contaminate water, food or feed by storage or disposal.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.**

**EYES:** Not usually required. If necessary, use safety glasses or goggles.

**RESPIRATORY PROTECTION:** Use in a well ventilated area. If not adequate, use a respirator approved by the National Institute of Occupational Health and Safety.

**SKIN PROTECTION:** Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves (PVC disposable or nitrile rubber).

**ENGINEERING CONTROLS:** Provide adequate ventilation. Control airborne concentrations below appropriate exposure guidelines.

**OTHER/GENERAL PROTECTION:** Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash clothing before reuse.

**EXPOSURE LIMITS - See Section 2.**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Liquid
<b>COLOR:</b>	White
<b>ODOR:</b>	Odorless
<b>SPECIFIC GRAVITY:</b>	1.053 lb/gal @ 20° C
<b>pH:</b>	5.0 - 7.0
<b>VISCOSITY:</b>	1500 cps @ 22° C
<b>SOLUBILITY:</b>	Suspends readily in water.

## 10. STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY:</b>	Stable.
<b>INCOMPATIBILITY:</b>	Strong acids and oxidizing agents
<b>OXIDATION/REDUCTION PROPERTIES:</b>	Product does not have the potential to act as a strong oxidizing or reducing agent.
<b>EXPLODABILITY:</b>	Not expected to be explosive.
<b>HAZARDOUS POLYMERIZATION :</b>	Will not occur.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	May form toxic materials such as: Carbon dioxide, carbon monoxide, various hydrocarbons, etc.
<b>CONDITIONS TO AVOID:</b>	High temperatures

## 11. TOXICOLOGICAL INFORMATION

**ACUTE** (Product Specific Information):

Acute data has been obtained from studies conducted on a similar formulation.

Oral Toxicity LD <sub>50</sub> (rats)	> 15,000 mg/kg	EPA Tox Category	IV
Dermal Toxicity LD <sub>50</sub> (rabbits)	> 10,000 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC <sub>50</sub> (rats)	> 1.02 mg/L	EPA Tox Category	III

Eye Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

**CHRONIC/CARCINOGENICITY:** General neurological symptoms were exhibited in studies with rats, mice and dogs. These symptoms included unsteadiness, abnormal gait, tremors and liquid feces. No histopathologic findings were observed except some signs of slight hepatotoxicity in mice. No Observable Effect Levels (NOEL's) were 1 mg/kg/day in the 2 year rat and dog studies. The NOEL for the 2 year mouse study was approximately 12 mg/kg/day. Deltamethrin was not carcinogenic in rats or mice.

**NEUROTOXICITY:** Deltamethrin does not inhibit acetylcholinesterase. Neurobehavioral effects including unsteadiness, excessive salivation, vomiting, liquid feces, uncoordinated movement, tremors, spasmodic convulsions which are typically related to Central Nervous System (CNS) stimulation, were observed in some studies. The NOEL for these studies was 1 mg/kg/day or higher.

**CARCINOGENICITY:** NTP: Not listed; IARC: Deltamethrin (52918-63-5); OSHA: Not listed; ACGIG: Not listed

**REPRODUCTION:** Reproduction studies with rats produced clinical signs, reduced body weight gain and mortality in parent and offspring at very high dosages. The NOEL for the parents and offspring was 80 ppm or approximately 4 to 12 mg/kg/day for adults and 18 to 44 mg/kg/day for offspring.

**DEVELOPMENTAL TOXICITY:** No developmental effects were observed in studies with rats or rabbits in the absence of maternal toxicity. The developmental NOEL for rabbits was 25 mg/kg/day.

**MUTAGENICITY:** No evidence of genotoxicity was observed in a battery of in vitro and in vivo studies.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION:

#### ACUTE AND LONG-TERM TOXICITY TO FISH AND INVERTEBRATES:

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water. 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 it to drift to blooming crops or weeds if bees are visiting the treatment area.

#### OTHER ENVIRONMENTAL INFORMATION:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not contaminate water when disposing of equipment wash waters.

## 13. DISPOSAL CONSIDERATIONS

**END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.**

#### PRODUCT DISPOSAL:

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

#### CONTAINER DISPOSAL:

Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**DISPOSAL METHODS:**

Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

<b>14. TRANSPORT INFORMATION</b>
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<b>UN/NA NUMBER:</b>	Not applicable
<b>DOT (ground) SHIPPING NAME:</b>	Insecticide, liquid, non-regulated
<b>TECHNICAL NAME (hazardous material):</b>	(deltamethrin)
<b>HAZARD CLASS:</b>	Not applicable
<b>PACKING GROUP:</b>	Not applicable
<b>REMARKS:</b>	None

<b>15. REGULATORY INFORMATION</b>
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**PESTICIDE REGULATIONS:** All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

**U.S. FEDERAL REGULATIONS:**

Chemical Name	RCRA - U Series Wastes	Clean Water Act - Hazardous Substances	Clean Water Act Section 307
Deltamethrin* (52918-63-5)	None	Not listed	Not listed
Propylene glycol (57-55-6)	None	Not listed	Not listed

**CWA Section 311:** No data

Chemical Name	SARA 313 Chemicals	SARA Section 302	CERCLA Reportable Quantity (RQ):
Deltamethrin* (52918-63-5)	Not listed	Not listed	None
Propylene glycol (57-55-6)	Not listed	Not listed	None

**SARA (311, 312):**

Immediate Health:	Yes
Chronic Health:	No
Fire:	No
Sudden Pressure:	No
Reactivity:	No

Chemical Name	IARC - Group 1 (carcinogenic to humans)	IARC - Group 2A (Probably carcinogenic)	IARC - Group 2B (Possibly carcinogenic)	NTP Carcinogen List
Deltamethrin* (52918-63-5)	No	No	No	Not listed
Propylene glycol (57-55-6)	No	No	No	Not listed

**STATE REGULATIONS:**

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 2 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above.

Chemical Name	California Proposition 65	California - Directors List of Hazardous Substances	NJ Environmental Hazardous Substances List
Deltamethrin* (52918-63-5)	Not listed	Not listed	Not listed
Propylene glycol (57-55-6)	Not listed	Not listed	Not listed

Chemical Name	MI - Critical Materials List	MA Right To Know	NJ Right To Know
Deltamethrin* (52918-63-5)	Not listed	Not listed	Listed
Propylene glycol (57-55-6)	Not listed	Not listed	Not listed

Chemical Name	PA Right To Know	RI Right To Know	MN Hazardous Substance
Deltamethrin* (52918-63-5)	Not listed	Not listed	Not listed
Propylene glycol (57-55-6)	Listed	Listed	Listed

**California Proposition 65:** Not listed

**CHEMICAL INVENTORY INFORMATION:**

TSCA Inventory List - Registered pesticide, exempt from TSCA.

Chemical Name	Canada NDSL Inventory List	Canada DSL Inventory List -	EINECS Inventory List -
Deltamethrin* (52918-63-5)	-	Not listed	258-256-6
Propylene glycol (57-55-6)	Not listed	Listed	200-338-0

**CANADIAN REGULATIONS:**

**WHMIS Hazard Class:** Not determined

For information regarding potential adverse health effects from exposure to this product, refer to Sections 3 and 11.

**16. OTHER INFORMATION**

**REASON FOR ISSUE:** New format. Revisions throughout MSDS.  
**EPA REGISTRATION NUMBER:** 73049-391  
**MSDS NO.:** ENV-0093  
**REVISION NUMBER:** 1  
**REVISION DATE:** 08/20/2008  
**SUPERCEDES DATE:** May 18, 2004

**DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES**

THIS INFORMATION IS PROVIDED IN GOOD FAITH BUT WITHOUT EXPRESS OR IMPLIED WARRANTY. BUYER ASSUMES ALL RESPONSIBILITY FOR SAFETY AND USE NOT IN ACCORDANCE WITH LABEL INSTRUCTIONS.

THE INFORMATION IN THIS MSDS IS BASED ON DATA AVAILABLE TO US AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT VALENT BIOSCIENCES TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS.

JUDGEMENTS AS TO THE SUITABILITY OF INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR

**Emergency Telephone:** In US (877) 315-9819; Outside US (651) 632-6184  
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PURPOSES ARE NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, VALENT 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.

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