

Material Safety Data Sheet



SBP-1382® T.E.C. 6%

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to 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, 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.

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SBP-1382 ® T.E.C. 6%
EPA REGISTRATION NUMBER: 73049-101
MSDS IDENTIFICATION CODE/NO.: ENV-0056
CHEMICAL NAME: Mixture; a.i.'s, resmethrin
PRODUCT DESCRIPTION: This product is intended for formulation of insecticides only.

SBP-1382 is a registered trademark of Valent BioSciences Corporation.

MANUFACTURER

Valent BioSciences Corporation
870 Technology Way
Libertyville, Illinois 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

EMERGENCY TELEPHONE #: Within the United States (877) 315-9819
Outside the United States (651) 632-6184

MSDS NO. ENV-0056

Revision Number: 3

Revision Date: 02/16/2007

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name (CAS #) [Chemical Name]	Weight Percent	Exposure Limit	Ref.
Resmethrin (10453-86-8)* [5-(phenylmethyl)-3-furanyl]methyl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate Synthetic Pyrethroid	= 6.0	None established	
Inert Ingredients Containing: **	= 94.0		
Aromatic Petroleum Solvent (64742-94-5)	< 12	1200 mg/m ³	Manufactures recommended TWA
Methanol (67-56-1)	< 10	260mg/m ³ 200 ml/m ³	OSHA PEL- STEL
		328 mg/m ³ 250 ml/m ³	ACGIH TLV- STEL
		262 mg/m ³ 200 ml/m ³	ACGIH TLV- TWA
Isopropanol (67-63-0)	< 5	980 mg/m ³ 400 ml/m ³	OSHA PEL- STEL
		1230 mg/m ³ 500 ml/m ³	ACGIH TLV- STEL
		983 mg/m ³ 400 ml/m ³	ACGIH TLV- TWA

* Active Ingredient

** 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.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

A CLEAR TO HAZY BROWN LIQUID WITH A CHARACTERISTIC ODOR

DANGER:

- HARMFUL OR FATAL IF SWALLOWED
- VAPOR HARMFUL
- CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE
- FLAMMABLE
- TOXIC TO FISH

NOTE: PRODUCT CONTAINS METHANOL. METHANOL MAY CAUSE BLINDNESS

POTENTIAL HEALTH EFFECTS

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

Signs and Symptoms of Systemic Effects: Transient headache, dizziness, stuffy or runny nose, scratchy throat and localized sensitization. May cause gastrointestinal effects such as nausea, vomiting and diarrhea.

Eye: Corrosive. Causes irreversible eye damage. Methanol may cause blindness.

Skin: Harmful if absorbed through the skin.

Ingestion: Harmful or fatal if swallowed

Inhalation: Methanol vapor is harmful.

Carcinogenic:

INTERNATIONAL AGENCY FOR RESEARCH IN CANCER LISTING:

Isopropanol 2.8% (67-63-0)

OSHA SPECIFICALLY REGULATED CARCINOGENS:

Methanol 8.7% (67-56-1)

SECTION 4: FIRST AID MEASURES**EMERGENCY NUMBER**

Within the United States (877) 315-9819

Outside the United States (651) 632-6184

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.

SKIN: 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: 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 a poison control center 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 mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN: This product contains a pyrethroid, petroleum solvent and methanol. The possibility of aspiration pneumonia must be considered. The product can cause severe eye damage, both topically and systemically. Ophthalmology consultation recommended. Treatment is symptomatic. Mucosal damage may contraindicate the use of gastric lavage.

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

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: 60°F (16°C) **METHOD:** TCC

AUTOIGNITION: NA

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, or Water

FLAMMABLE LIMITS (% by volume in air): Lower: NA Upper: NA

FIRE AND EXPLOSION HAZARDS: Flammable. Keep away from heat or open flame. FLASH POINT MINIMUM 60°F (15.5°C).

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 and carbon monoxide, various hydrocarbons, etc.

SECTION 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PHONE NUMBER: Within the United States (877) 315-9819
Outside the United States (651) 632-6184

OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION

Flammable: Remove all sources of ignition if safe to do so.

Ventilate area. Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water.

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. Ensure that the disposal is in compliance with all Federal, Provincial, and local regulations (See Section 13 for applicable RCRA Number). Refer to Section 15 for applicable Reportable Quantity (RQ) and other regulatory requirements.

SPILL OR LEAK**CONTAINMENT:**

Small Spills: Soak up liquid with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Place in an approved chemical waste container for disposal. Where possible drum should be oriented to prevent further leakage. Drum should be placed in a spillage drum for further movement or transport. Do not allow spill material to enter any body of water.

Large Spills: Eliminate all ignition sources. Stop leak if you can do so without coming into contact with spilled material. Dike far ahead of liquid 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.

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 residue. Do not allow water to contaminate water supplies or sewers.

SECTION 7: HANDLING AND STORAGE**HANDLING PRECAUTIONS:**

Corrosive. Causes irreversible eye damage. Harmful or fatal if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Methanol may cause blindness. Wear goggles or face shield. Avoid breathing mist or vapor. Keep away from heat or open flame.

STORAGE PRECAUTIONS:

Do not contaminate water, food or feed by storage or disposal. This material may stratify upon standing, even at room temperature. Thoroughly mix before each use. Do not store at temperatures below 40°F (4.5°C). If this material has been exposed to temperatures below 40°F (4.5°C), there may be precipitation, allow to stand until product reaches room temperature and thoroughly mix before using. Check for crystallization. If evident, warm to 80°F and thoroughly mix before using. DO NOT USE OPEN FLAME.

WORK/HYGIENIC PRACTICES: Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Control airborne concentrations below the appropriate exposure guidelines. Use local exhaust ventilation.

RESPIRATION/VENTILATION: Use in a well ventilated area. If not adequate, use a chemical cartridge-type respirator approved by the National Institute of Occupational Health and Safety.

EYE PROTECTION: Safety glasses, splash goggles or face shield.

HAND PROTECTION: Use of butyl or nitrile rubber gloves.

BODY PROTECTION: Clothing (disposable or washable) to minimize skin contact.

OTHER/GENERAL PROTECTION: Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Eye wash facility and safety shower should be available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear to hazy brown
ODOR:	Characteristic
PHYSICAL STATE:	Liquid
SOLUBILITY (H₂O):	Miscible
pH:	NA
SPECIFIC GRAVITY:	0.98 – 1.01 @ 21°C
DENSITY:	0.99 g/cm ³ @ 21°C (8.28 lb/gal @ 21°C)
% VOLATILES:	20%

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: Excessive heat and sources of ignition.

INCOMPATIBILITY: Strong oxidizing agents and acids.

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

OXIDATION/REDUCTION PROPERTIES: Product does not have the potential to act as a strong oxidizing or reducing agent.

HAZARDOUS POLYMERIZATION: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE (Product Specific Information): Exposure levels tested in animals at or near the LD50/LC50 have produced the following symptomology: decreased locomotion, tremors, salivation and erect body hair.

Oral Toxicity LD₅₀ (rat):	>5,050 mg/kg	IVEPA Tox Category
Dermal Toxicity LD₅₀ (rabbit):	> 2,020 mg/kg	III EPA Tox Category
Inhalation Toxicity LC₅₀(rat):	> 4.73 mg/L	IV EPA Tox Category
Eye Irritation (rabbit):	Corrosive	I EPA Tox Category
Skin Irritation (rabbit):	Slightly irritating	III EPA Tox Category
Skin Sensitization (guinea pig):	Non-sensitizer	

For transport purposes (49 CFR Part 173.132), the calculated 1-hour LC₅₀ is: 18.92 mg/L.

TOXICITY OF ACTIVE INGREDIENTS: RESMETHRIN

Sub chronic (target organ effects)

The NOEL established for Resmethrin in a 90-day inhalation study was 0.1 g/m³. The NOEL was 10 mg/kg/day when dogs were fed diets containing Resmethrin for 180 days.

Chronic Toxicity and Carcinogenicity

Resmethrin did not produce any evidence of toxic effects when fed to rats at concentrations of up to 500 ppm for two years.

Resmethrin was not considered to be oncogenic based on chronic feeding studies conducted in rats and mice.

Reproductive and Developmental Toxicity

A slight increase in the number of pups cast dead and a decrease in pup weights were observed when rats were fed diets containing 500 ppm (lowest dosage tested) or higher of Resmethrin over three successive generations.

Resmethrin is not considered to be teratogenic based on studies conducted in rabbits and rats.

Neurotoxicity

Resmethrin is not considered to be a neurotoxin based on rat feeding studies conducted for up to 32 weeks.

Mutagenicity (Genetic Effects)

Resmethrin is not considered to be mutagenic based on in vitro studies conducted with bacteria and yeast.

CARCINOGENICITY: NTP: No IARC: No OSHA: No

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

ACUTE AND LONG-TERM TOXICITY TO FISH AND INVERTEBRATES:

This product is highly toxic to fish.

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 Pollutant Discharge Elimination system (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to 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.

ECOTOXICOLOGICAL INFORMATION

ACUTE AND LONG-TERM TOXICITY TO FISH AND INVERTEBRATES

The LC₅₀ of resmethrin in rainbow trout is 2.4 ug/l or 2.4 ppb. The LC₅₀ of resmethrin in Bluegill sunfish is 8.75 ppb. The LC₅₀ of resmethrin in goldfish is 28 ppb. (after aging 72 hours, water containing 250 ppb resmethrin resulted in zero mortality).

Three applications of resmethrin at 0.10 pounds actual insecticide per acre applied at 2 week intervals caused no mortality to kill fish, even where concentrations reached a maximum of 7.3 ppb in the test pools.

Under similar conditions using approximately 0.04 pounds per acre or 7.3 ppb of actual insecticide in water resulted in no mortality to grass shrimp.

ACUTE AND DIETARY TOXICITY TO BIRDS

EMERGENCY TELEPHONE #: Within the United States (877) 315-9819
Outside the United States (651) 632-6184

MSDS NO. ENV-0056

Revision Number: 3

Revision Date: 02/16/2007

The acute oral LD₅₀ of resmethrin in male California quail was in excess of 2,000 mg/kg.

The LC₅₀ of resmethrin fed to Japanese quail in their diet was >5,000 ppm.

Dietary administration of resmethrin at 300 ppm for 23 weeks produced no adverse effects on reproduction in Bobwhite quail and in Mallard ducks.

SECTION 13: DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: Pesticides wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed by use according to label instructions, 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 approved State and local procedures.

RCRA INFORMATION

RCRA HAZARDOUS WASTE INGREDIENTS: Methyl alcohol

SECTION 14: TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Pesticides, Liquid, Flammable, Toxic (Methyl alcohol)

RQ: NA

DOT HAZARD CLASS: 3

SUBSIDIARY HAZARD CLASS: 6.1

UN/NA NUMBER: UN 3021

PACKAGING GROUP: II

DOT SHIPPING LABEL: Flammable Liquid, Poison

REMARKS: NA

EXEMPTION REQUIREMENT: NA

NOTE: NA

SECTION 15: REGULATORY INFORMATION

REGULATIONS UNDER FIFRA: 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.

EPA Registration Number: 73049-101

OTHER U.S. FEDERAL REGULATIONS:

TSCA Inventory: Registered Pesticide, exempt from TSCA.

SARA TITLE III:

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372:

CAS NUMBER	INGREDIENT NAME	PERCENT BY WEIGHT
10453-86-8	Resmethrin	= 6
67-63-0	Isopropanol	= 2.8
67-56-1	Methanol	= 8.7

SARA Title III:

Acute Health Hazard - Yes
 Chronic Health Hazard - No
 Fire Hazard - Yes
 Sudden Release of Pressure - No
 Reactivity Hazard - No

This information must be included on all MSDSs that are copied and distributed for this material.

REGULATED INGREDIENTS

INGREDIENT: Resmethrin

CAS NUMBER: 10453-86-8

PERCENT BY WEIGHT: = 15

Regulations: State right-to-know: NJ

Canadian Domestic Substance List (DSL)

European Inventory of Existing Commercial Substances (EINECS)

California Proposition 65 (Development toxin): This product contains a chemical (resmethrin) known to the State of California to cause cancer or birth defects or other reproductive harm.

INGREDIENT: Isopropanol

CAS NUMBER: 67-63-0

PERCENT BY WEIGHT: = 2.8

Regulations: State right-to-know: CT, FL, IL, MA, NJ, PA, RI

U.S. TSCA Inventory Status 12B

Canadian Domestic Substance List (DSL)

European Inventory of Existing Commercial Substances (EINECS)

INGREDIENT: Methanol

CAS NUMBER: 67-56-1

PERCENT BY WEIGHT: = 8.7

Regulations: State right-to-know: CT, FL, IL, MA, NJ, NY, PA, RI

CERCLA HAZARDOUS SUBSTANCE

SARA EHS 304 Reportable Quantity

Canadian Domestic Substance List (DSL)

European Inventory of Existing Commercial Substances (EINECS)

INGREDIENT: Aromatic petroleum solvent

CAS NUMBER: 64742-94-5

PERCENT BY WEIGHT: > 12

Regulations: Canadian Domestic Substance List (DSL)

European Inventory of Existing Commercial Substances (EINECS)

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

EMERGENCY TELEPHONE #: Within the United States (877) 315-9819
 Outside the United States (651) 632-6184

MSDS NO. ENV-0056

Revision Number: 3

Revision Date: 02/16/2007

HMIS HAZARD RATING - HEALTH: 2 Slight
- FIRE: 3 Moderate
- REACTIVITY: 0 Negligible
- PROTECTION: C

NFPA HAZARD RATING - HEALTH: 2 Slight
- FIRE: 3 Moderate
- REACTIVITY: 0 Negligible
- SPECIAL: -

RATINGS:

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4).

These values are obtained using professional judgment. Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with the information contained in the product MSDS.

* RQ: Reportable Quantity

** RCRA waste codes must be determined on a case-by-case basis (i.e., spill, processing waste, etc.).

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

SECTION 16: OTHER INFORMATION

REASON FOR ISSUE: Update Packaging Group Category
REVISION NUMBER: 3
REVISION DATE: 02/16/2007
SUPERSEDES DATE: 12/22/2004
EPA REGISTRY NUMBER: 73049-101
MSDS NUMBER: ENV-0056

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 CORPORATION TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS.

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

December 2004 © Valent BioSciences Corporation

EMERGENCY TELEPHONE #: Within the United States (877) 315-9819
Outside the United States (651) 632-6184

MSDS NO. ENV-0056

Revision Number: 3

Revision Date: 02/16/2007