



Material Safety Data Sheet

SBP-1382 BIOALLETHRIN INSECTICIDE CONCENTRATE 8% - 16% FORMULA 1

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SBP-1382 BIOALLETHRIN INSECTICIDE CONCENTRATE 8% - 16% FORMULA 1
EPA REGISTRATION NUMBER: 73049-103
CHEMICAL DESCRIPTION: Mixture; a.i.'s: resmethrin & bioallethrin
SYNONYM(S): None
PRODUCT DESCRIPTION: This product is intended for formulation use only. Insecticide

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

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

- CAUTION**
- Harmful if swallowed
 - Combustible.
 - Highly toxic to fish.
 - Keep out of reach of children.

POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure): Ingestion, eye and skin contact.

Signs and Symptoms of Systemic Effects: This product contains a pyrethroid. Pyrethroids produce salivation, diarrhea, weakness tremors and convulsions in laboratory animals exposed to high doses.

Acute Eye Contact: May cause mild, reversible eye irritation.

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

Acute Ingestion: This product is slightly toxic when ingested.

Acute Inhalation: This product may be harmful if inhaled in excess.

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

MSDS NO.:
REVISION DATE:

ENV-0046
04/14/2009

Potentially Aggravated Medical Conditions: None known

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11. For Ecotox/Environmental Information, refer to Section 12. For Regulatory Information, refer to Section 15.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent	Purpose
Resmethrin ([5-(phenylmethyl)-3-furanyl]methyl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate)	10453-86-8	8	Active Ingredient
Bioallethrin (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl (1R, 3R)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate	28057-48-9	16	Active Ingredient
Aromatic Hydrocarbon	64742-95-6	10 - 12	Solvent , Alternate ingredient
Other ingredients	Various CAS#s	remainder	Emulsifier

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.

4. FIRST AID MEASURES

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:

Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. 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 contains a Pyrethroid pesticide. If a small amount is ingested (or if treatment is delayed) oral administration of large amounts of activated charcoal and a cathartic is probably sufficient therapy. If large amounts are ingested and vomiting has not occurred emesis should be induced with supervision. Keep patients 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.

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

If localized paresthesia develops, the site should be thoroughly washed with soap and water. Cold cream can be applied to help diminish the effect.

5. FIRE FIGHTING MEASURES

FLASH POINT: 100° F (38° C)

5. FIRE FIGHTING MEASURES

FLASH POINT METHOD: TCC
EXTINGUISHING MEDIA: Foam, carbon dioxide, or dry chemical.
OSHA FLAMMABILITY CLASS: Combustible.

NFPA RATING:
Health: 2
Flammability: 2
Reactivity: 1
Special: None

(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 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 of water 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.

6. ACCIDENTAL RELEASE MEASURES

VALENT BIOSCIENCES EMERGENCY PHONE NUMBER:
WITHIN THE UNITED STATES: (877) 315-9819
OUTSIDE OF THE UNITED STATES: (651) 632-6184

UN/NA NUMBER: UN 1993 **EMERGENCY RESPONSE GUIDEBOOK NO.:** 128

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, and local regulations. 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. Place in an approved chemical waste container for disposal. Where possible, drum should be oriented to prevent further leakage. Do not allow spilled material to enter any body of water.

Large Spills: Eliminate all ignition sources. 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.

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 swallowed. Avoid breathing vapors. May cause eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

STORAGE: Do not contaminate water, food or feed by storage or disposal. Do not store at temperatures below 40°F (4.5°C) ; there may be precipitation. Check for crystallization. If evident, warm to 80°F (26.5 °C) and thoroughly mix before using. **DO NOT USE OPEN FLAME.**

WORK/HYGIENIC PRACTICES: Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing safety goggles or a face shield.

RESPIRATORY PROTECTION: Ensure good ventilation. If not adequate, use a chemical cartridge-type respirator by the NIOSH.

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

ENGINEERING CONTROLS: Control airborne concentrations below the appropriate exposure limits. Use local exhaust ventilation. Eyewash and safety shower equipment should be available.

EXPOSURE LIMITS

Chemical Name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Resmethrin ([5-(phenylmethyl)-3-furanyl]methyl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate)	None	None	None
Bioallethrin (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl (1R, 3R)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate	None	None	None
Aromatic Hydrocarbon	None	None	100 mg/m ³ TWA
Other ingredients	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:

Liquid

COLOR:

Clear brown

ODOR:

Shoe-polish like

FLASH POINT:

100° F (38° C)

FLASH POINT METHOD:

TCC

DENSITY:

8.65 lbs/gal

SPECIFIC GRAVITY:

1.0

VISCOSITY:

242 cps @ 23° C

SOLUBILITY:

Emulsifiable in water.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.
OXIDATION/REDUCTION PROPERTIES: No data available
EXPLODABILITY: Not expected to be explosive.
HAZARDOUS POLYMERIZATION : Will not occur.
CONDITIONS TO AVOID: Excessive heat and sources of ignition.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

The following information is for a similar product. It contained 10% resmethrin and 7.5% bioallethrin.

Oral Toxicity LD ₅₀ (rats)	> 5,050 mg/kg (males), = 3,870 mg/kg (females)	EPA Tox Category	IV III
Dermal Toxicity LD ₅₀ (rabbits)	> 5,000 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC ₅₀ (rats)	> 2.28 mg/L (4 hr)	EPA Tox Category	IV
Eye Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Irritation (rabbits)	Non-irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical Name	IARC - Group 1 (carcinogenic to humans)	IARC - Group 2A (Probably carcinogenic)	IARC - Group 2B (Possibly carcinogenic)	NTP Carcinogen List
Resmethrin ([5-(phenylmethyl)-3-furanyl]methyl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate) (10453-86-8)	No	No	No	Not listed
Bioallethrin (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl (1R, 3R)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate (28057-48-9)	No	No	No	Not listed
Aromatic Hydrocarbon (64742-95-6)	No	No	No	Not listed
Other ingredients (Various CAS#s)	No	No	No	Not listed

CHRONIC/CARCINOGENICITY: Studies conducted with resmethrin or a product similar to bioallethrin did not reveal any evidence of oncogenicity.

DEVELOPMENTAL TOXICITY: Studies conducted with resmethrin or a product similar to bioallethrin in rats and mice did not reveal any evidence of teratogenicity.

REPRODUCTION: No adverse effects on reproductive parameters were observed when diets containing up to 500 ppm resmethrin were fed to rats over two successive generations.

MUTAGENICITY: In vitro studies conducted with resmethrin or bioallethrin did not reveal any evidence of mutagenicity.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

AQUATIC ORGANISM TOXICITY: 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 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:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

Non-refillable container. Do not reuse or refill this container. 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.

14. TRANSPORT INFORMATION

UN/NA NUMBER:	UN 1993
DOT (ground) SHIPPING NAME:	Flammable liquid, n.o.s. (contains petroleum distillates)
TECHNICAL NAME (hazardous material):	(petroleum distillate)
HAZARD CLASS:	3
PACKING GROUP:	III
DOT REPORTABLE QUANTITY (RQ):	Not applicable
REMARKS:	For transport purposes (49 CFR part 173.132), the calculated 1-hr LC50 (rat) is 9.12 mg/L.
EXEMPTION REQUIREMENT:	None
EMERGENCY RESPONSE GUIDEBOOK NO.:	128
MARINE POLLUTANT:	

15. REGULATORY INFORMATION

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:

Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Resmethrin ([5-(phenylmethyl)-3-furanyl]methyl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate)
SARA 313 Chemicals 1.0% de minimis concentration

Bioallethrin (RS)-3-allyl-2-methyl-4-oxocyclopent-2-enyl (1R, 3R)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate
SARA 313 Chemicals 1.0% de minimis concentration

SARA (311, 312):

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

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 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Resmethrin ([5-(phenylmethyl)-3-furanyl]methyl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate)
California Proposition 65 developmental toxicity, initial date 11/6/98
NJ Right To Know Listed

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE:	New format. Revisions throughout MSDS. Correct the transportation information.
EPA REGISTRATION NUMBER:	73049-103
MSDS NO.:	ENV-0046
REVISION NUMBER:	1
REVISION DATE:	04/14/2009
SUPERCEDES DATE:	October, 2001
RESPONSIBLE PERSON(S):	Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803

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.

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.

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