

Material Safety Data Sheet



SBP-1382 Insecticide Concentrate 12% Formula 1 With Residual Activity

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 Insecticide Concentrate 12% Formula 1 With Residual Activity
EPA REGISTRATION NUMBER: 73049-98
MSDS IDENTIFICATION CODE/NO.: ENV-0123
CHEMICAL NAME: Mixture; a.i.'s, resmethrin
PRODUCT DESCRIPTION: 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-0123

Revision Number: 1

Revision Date: 03/11/2005

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	= 12.0	None established	
Inert Ingredients Containing: **	= 88.0		
Aromatic Hydrocarbon (64742-95-6)	< 20.0	100 ppm	Company Recommended
Epoxidized Linseed Oil (8016-11-3)	< 35.0	None established	

* 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 AMBER LIQUID WITH A STRONG SOLVENT ODOR LIKE PAINT OR SHOE POLISH	
CAUTION:	- HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN - TOXIC TO FISH

POTENTIAL HEALTH EFFECTS

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

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

Eye: Minimally irritating.

Skin: Harmful if absorbed through skin. Prolonged or repeated contact may result in contact dermatitis which is characterized by dryness, chapping and reddening.

Ingestion: Harmful if swallowed. Ingestion of small quantities are usually nonfatal unless aspiration occurs. If aspiration occurs during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Inhalation: Slightly irritating. Harmful or fatal if inhaled in excess.

SECTION 4: FIRST AID MEASURES

EMERGENCY NUMBER

Within the United States (877) 315-9819

Outside the United States (651) 632-6184

Have the product container or label with you when calling poison control center or doctor, or going for treatment.

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

NOTES TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.

HINTS FOR THE PHYSICIAN: This product contains a Pyrethroid. 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.

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: 100°F (38°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: Combustible. Do not use or store near heat or open flame.

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

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.
- Stop the source of the spill. 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. and dispose of in trash. 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:

Harmful if swallowed or absorbed through skin. Avoid contact with skin eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Avoid contamination of feed and foodstuff. Do not use near heat or open flame.

STORAGE PRECAUTIONS:

Store upright at room temperature. Do not store near heat or open flame. 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. 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. 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 or goggles.

SKIN 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 amber
ODOR:	Strong solvent odor like paint or shoe polish
PHYSICAL STATE:	Liquid
SOLUBILITY (H₂O):	Complete
pH:	7.6 @21.7°C
DENSITY/SPECIFIC GRAVITY	0.98 g.cm ³ @ 21°C (8.20 lb/gal @ 21°C)
VISCOSITY	92 cps @ 20.9°C

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):	>5,500 mg/kg	IV EPA Tox Category
Dermal Toxicity LD₅₀ (rabbit):	> 2,020 mg/kg	III EPA Tox Category
Inhalation Toxicity LC₅₀(rat):	> 4.93 mg/L	IV EPA Tox Category
Eye Irritation (rabbit):	Non-irritating	IV EPA Tox Category
Skin Irritation (rabbit):	Slightly irritating	IV EPA Tox Category
Skin Sensitization (guinea pig):	Non-sensitizer	

Note: For transport purposes (49 CFR 173.132), the calculated 1-hour LC₅₀ (Rate) is > 19.72 mg/L.

TOXICITY OF ACTIVE INGREDIENTS: RESMETHRIN:

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

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.

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

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: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If partly filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

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: None

SECTION 14: TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Flammable liquid, n.o.s. (Petroleum distillate)

RQ: NA

DOT HAZARD CLASS: 3

UN/NA NUMBER: 1993

PACKAGING GROUP: III

DOT SHIPPING LABEL: Flammable liquid

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: 73049-98

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	= 12.0

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: = 12
Regulations: SARA Section 313 Toxic Chemical
State right-to-know: NJ
California Proposition 65 (Development toxin)
Canadian Domestic Substance List (DSL)
European Inventory of Existing Commercial Substances (EINECS)

INGREDIENT: Aromatic Hydrocarbon
CAS NUMBER: 64742-95-6
PERCENT BY WEIGHT: < 20
Regulations: U.S. TSCA Inventory Status
Canadian Domestic Substance List (DSL)
European Inventory of Existing Commercial Substances (EINECS)

INGREDIENT: Epoxidized Linseed Oil
CAS NUMBER: 8016-11-3
PERCENT BY WEIGHT: < 35
Regulations: U.S. TSCA Inventory Status
Australian (AICS)
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

HMIS HAZARD RATING - HEALTH: 1 Slight
- FIRE: 2 Moderate
- REACTIVITY: 0 Negligible
- PROTECTION: H

NFPA HAZARD RATING - HEALTH: 1 Slight
- FIRE: 2 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: New company name and new EPA number
REVISION NUMBER: 1
REVISION DATE: 03/11/2005
SUPERSEDES DATE: 01/19/2001
EPA REGISTRY NUMBER: 73049-98
MSDS NUMBER: ENV-0123

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.

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