

SAFETY DATA SHEET

1. Identification

Product identifier	BIDRIN® XP11
Other means of identification	
SDS number	368
Product registration number	5481-9024
Recommended use	Broad-Spectrum Cotton Insecticide (contains both a pyrethroid and an organophosphate insecticide).
Recommended restrictions	This is a Restricted Use Pesticide and is for use by licensed applicators only. Keep out of the Reach of Children!
EPA Registration number	EPA: 5481-9024
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	AMVAC Chemical Corporation
Address	4695 MacArthur Court Suite 1200 Newport Beach, CA 92660 United States
Telephone	AMVAC Chemical Corp 949-260-1200 AMVAC Chemical Corp 949-260-6270(FAX)
E-mail	CustServ@Amvac-Chemical.com
Emergency phone number	Medical 888-681-4261 CHEMTREC® 800-424-9300 (USA+Canada) Product Use 888-462-6822 CHEMTREC® (Outside 1+703-527-3887 USA)

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, oral	Category 2
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 2
	Serious eye damage/eye irritation	Category 2B
	Carcinogenicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 1 (nervous system)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		



Signal word

Danger

Hazard statement Combustible liquid.
 Fatal if swallowed.
 Toxic in contact with skin.
 Fatal if inhaled.
 Causes eye irritation.
 Suspected of causing cancer.
 Causes damage to organs through prolonged or repeated exposure.
 Very toxic to aquatic life.
 Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe mist or vapor.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not breathe dust or mists.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear respiratory protection.

Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 Rinse mouth.
 IF ON SKIN: Wash with plenty of water.
 Take off immediately all contaminated clothing and wash it before reuse.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Immediately call a poison center/doctor.
 Specific treatment is urgent (see product label).
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 In case of fire: Use appropriate media to extinguish.

Storage

Store in a well-ventilated place. Keep container tightly closed.
 Keep cool.
 Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

This is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced in section 15. The pesticide label also includes other important information, including directions for use.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Dicrotophos	2-Dimethylcarbamoyl-1-methylvinyl dimethyl phosphate Bidrin®	141-66-2	43.1
Bifenthrin	Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethyl-, (2-methyl[1,1'-biphenyl]-3-yl)methyl ester, (1R,3R)-rel-	82657-04-3	10.8

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Call a physician or poison control center immediately.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Have person sip a glass of water if able to swallow Do not induce vomiting without advice from poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance.
Most important symptoms/effects, acute and delayed	This product is a Cholinesterase Inhibitor. Preexisting skin or respiratory disorders may be aggravated by exposure to components of this product. Preexisting conditions which lower cholinesterase levels increase vulnerability to cholinesterase depression. these include: (for plasma) chronic alcoholism; malnutrition; dermatomyositis; existing toxicity from exposure to carbon disulfide; benzalkonium salts, organic mercury compounds, ciguatoxins or solanines; and (for RBC) hemolytic anemia. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, 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. Repeated exposures to small doses of organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.
Indication of immediate medical attention and special treatment needed	This product is an Organophosphate (OP) Insecticide. 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. Do not wait for laboratory confirmation to treat patients with strong clinical evidence of poisoning. In the USA and other countries, contact your local or national poison control center for more information. Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine Sulfate should be injected at 10 minutes intervals in doses of 1 to 2 milligrams until complete atropinization has occurred. Pralidoxime chloride (2-PAM chloride) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, an initial dose of 1 gram of 2-PAM should be injected, preferably as an infusion, in 250 cc of saline over a 15 to 20 minute period. If this is not practical, 2-PAM may be administered slowly by intravenous injection as a 5% solution in water over not less than 2 minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscle weakness has not been relieved. For infants and children, the dose of 2-PAM is 0.25 grams. Avoid morphine, aminophylline, phenothiazine, reserpine, furosemide and ethacrynic acid. Clear chest by postural drainage. Oxygen administration may be necessary. Observe patient continuously for 48 hours. Repeated exposure to cholinesterase inhibitors may without warning cause prolonged susceptibility very small doses of any cholinesterase inhibitor. Allow no further exposure until time for cholinesterase regeneration has been attained as determined by a blood test. Bathe and shampoo contaminated skin and hair. If ingested, empty stomach; activated charcoal is useful to further to further limit absorption. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small 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.
General information	If you feel unwell, seek medical advice (show the label where possible). This product is a severe Cholinesterase Inhibitor. A physician should be contacted in all cases of exposure to the technical and its formulations. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. Heating or burning may release highly toxic vapors or fumes. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup, which could result in container rupture. Do not breathe gas, fumes, or vapor.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Immediately evacuate personnel to safe areas. In case of fire and/or explosion do not breathe fumes. Keep upwind. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not get in eyes, on skin, on clothing. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Use water spray to reduce vapors or divert vapor cloud drift. This product is miscible in water.

Large Spills: Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Keep away from food, drink and animal feedstuffs. Keep out of the reach of children. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Handle and open container with care. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Dicrotophos (CAS 141-66-2)	TWA	0.05 mg/m ³	Inhalable fraction and vapor.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Dicrotophos (CAS 141-66-2)	TWA	0.25 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

Dicrotophos (CAS 141-66-2)

Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Dicrotophos (CAS 141-66-2)

Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Face-shield. Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Wear chemical resistant gloves (preferably nitrile)
Other	Wear appropriate chemical resistant clothing (see label). Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. It may provide little or no thermal protection.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Light yellow to dark amber liquid
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Mild ester
Odor threshold	Not available.
pH	2.7 - 2.8 (Dicrotophos, 1% in water)
Melting point/freezing point	Not determined (mixture)
Initial boiling point and boiling range	Not determined (mixture)
Flash point	> 180 °F (> 82 °C) Cleveland Open Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	2.90E-03 Pa 2.2 x 10-5 torr (dicrotophos)
Vapor density	Havier than air
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Emulsifiable
Solubility (solvents)	Ketones, esters, aromatic hydrocarbons
Partition coefficient (n-octanol/water)	6 (Bifenthrin)
	E-isomer = 2.445; Z-isomer = .000481 (dicrotophos)
Auto-ignition temperature	347 °F (175 °C)
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	9.51 lb/gal
Density	1.21 g/cm ³ estimated
Explosive properties	Not explosive.
Flammability class	Combustible IIIA estimated
Oxidizing properties	Not oxidizing.
Specific gravity	1.14 @ 20 °C

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known. Emits hazardous fumes and smoke of unknown composition when heated to decomposition or burned.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Fatal if inhaled.
Skin contact	Toxic in contact with skin.
Eye contact	Causes eye irritation.
Ingestion	Fatal if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

This is a cholinesterase inhibiting organophosphorous pesticide. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, 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. Product may cause slight but temporary irritation to the eyes and may cause irritation of the skin. Repeated exposures to small doses of organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

Information on toxicological effects

Acute toxicity	Fatal if inhaled. Toxic in contact with skin. Fatal if swallowed. NOTE: There is currently no information available for this premix. The following information is available for the two active substances, Dicrotophos and Bifenthrin, and is included here to assist the user in determining the possible characteristics of the product.
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Components	Species	Test Results
Bifenthrin (CAS 82657-04-3)		
Acute		
Dermal		
LD50	Rabbit	> 2020 mg/kg
Inhalation		
LC50	Rat	1.1 mg/l, 4 hours Males 0.8 mg/l, 4 hours Females
Oral		
LD50	Rat	175 mg/kg
Dicrotophos (CAS 141-66-2)		
Acute		
Dermal		
LD50	Rabbit	876 mg/kg (males) 487 mg/kg (females) (Tox Category II)
Inhalation		
LC50	Rat	> 0.059 mg/l (Tox Category II)
Oral		
LD50	Rat	11 mg/kg (males)(Tox Category I) 8 mg/kg (females)
Skin corrosion/irritation	Causes slight skin irritation.	
Serious eye damage/eye irritation	Causes eye irritation. Causes mild eye irritation.	

Respiratory or skin sensitization**Respiratory sensitization** No data available due to high toxicity**Skin sensitization** Skin sensitizer.**Germ cell mutagenicity** No data available due to high toxicity.**Carcinogenicity** Suspected of causing cancer. Bifenthrin has produced an increased incidence of urinary bladder tumors in male mice at the highest dose level tested. This response however was considered equivocal and not evidence of a clear compound related effect. The doses that produced this oncogenic effect in laboratory animals greatly exceeds human exposure levels for the recommended use of Bifenthrin products. Consequently, the oncogenic potential in humans is extremely weak or non-existent.

Dicrotophos has shown an increased incidence of thyroid follicular cell adenomas in male mice receiving 50 ppm dicrotophos, the highest dose level tested in a two year study. EPA's Cancer Classification o for Dicrotophos states only 'Suggestive Evidence of Carcinogenicity but Not Sufficient to Assess Human Carcinogenic Potential.' None of the following have classified Dicrotophos as carcinogenic: IARC, NTP, OSHA, or ACGIH.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Dicrotophos has shown effects on reproductive performance, pup survival and pup growth but only at dose levels (5 to 25 ppm) that also showed paternal toxicity in a rat multigeneration study.**Specific target organ toxicity - single exposure** No specific target organ toxicity is expected after single exposure.**Specific target organ toxicity - repeated exposure** Causes damage to organs (nervous system) through prolonged or repeated exposure. Causes damage to organs through prolonged or repeated exposure (Bifenthrin).**Aspiration hazard** Not an aspiration hazard.**Chronic effects** Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.**12. Ecological information****Ecotoxicity** Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Components	Species	Test Results
Bifenthrin (CAS 82657-04-3)		
Aquatic		
Crustacea	LC50	Water flea (Ceriodaphnia dubia)
		Water flea (Daphnia magna)
		0 - 0.0002 mg/l, 48 hours
		0.0001 - 0.0009 mg/l, 48 hours
Dicrotophos (CAS 141-66-2)		
Aquatic		
Crustacea	EC50	Water flea (Simocephalus serrulatus)
Fish	LC50	Bluegill (Lepomis macrochirus)
		2.8 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.**Bioaccumulative potential** No data available for this product.**Partition coefficient n-octanol / water (log Kow)**

BIDRIN® XP11	6, (Bifenthrin)
Dicrotophos	2.45, (E-isomer)

Mobility in soil No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with all applicable local/regional/national/international regulations. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with all applicable regulations. Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal methods/information). Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal according to all applicable regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN2902
UN proper shipping name	Pesticides, liquid, toxic, n.o.s. (Dicrotophos, Bifenthrin), MARINE POLLUTANT
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
Packing group	II
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T11, TP2, TP13, TP27
Packaging exceptions	153
Packaging non bulk	202
Packaging bulk	243

IATA

UN number	UN2902
UN proper shipping name	Pesticides, liquid, toxic, n.o.s. (Dicrotophos, Bifenthrin)
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
Packing group	II
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN2902
UN proper shipping name	Pesticides, liquid, toxic, n.o.s. (Dicrotophos, Bifenthrin), MARINE POLLUTANT
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
Packing group	II

Environmental hazards

Marine pollutant

Yes

EmS

Not available.

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

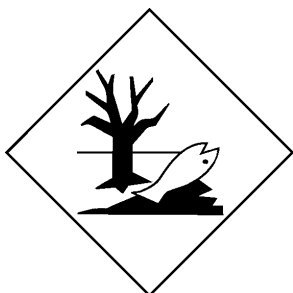
DOT



IATA; IMDG



Marine pollutant



General information

IMDG Regulated Severe Marine Pollutant. IMDG Regulated Marine Pollutant. DOT Regulated Severe Marine Pollutant. DOT Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

DANGER: Do not get in eyes, on skin, or on clothing. This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. This product is registered under EPA/FIFRA Regulations as a RESTRICTED USE PESTICIDE. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

HAZARD TO HUMANS AND DOMESTIC ANIMALS.

Fatal if swallowed, inhaled or absorbed through the skin. Causes skin burns and irreversible eye damage, Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to fish, aquatic invertebrates, birds and mammals. Use with care when applying in areas adjacent to any body of water. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Keep out of lakes, ponds, and streams. Do not contaminate water when disposing of equipment washwater or rinsate. Do not contaminate water when disposing of equipment washwater or rinsate.

PHYSICAL OR CHEMICAL HAZARDS

Keep away from heat and open flame. 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. This product is excluded from listing requirements under EPA/TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Dicrotophos (CAS 141-66-2) 100 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Dicrotophos	141-66-2	100	100		

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Serious eye damage or eye irritation
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Bifenthrin	82657-04-3	10.8

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** May-08-2015**Revision date** Aug-15-2018

References

ACGIH
 EPA: AQUIRE database
 NLM: Hazardous Substances Data Base
 US. IARC Monographs on Occupational Exposures to Chemical Agents
 ACGIH®: American Conference of Governmental Industrial Hygienists
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
 EPA: Environmental Protection Agency
 FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
 IARC: International Agency for Research on Cancer
 NTP: National Toxicology Program
 OSHA: Occupational Safety and Health Agency
 SARA: Superfund Amendments and Reauthorization Act
 TSCA: Toxic Substances Control Act
 DOT: Department of Transportation
 IMDG: International Maritime Dangerous Goods
 IATA: International Air Transport Association

Version # 3.0

HMIS® ratings

Health: 3*
 Flammability: 2
 Physical hazard: 0

NFPA ratings

Health: 4
 Flammability: 2
 Instability: 0

Disclaimer

This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

AMVAC Chemical Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

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Revision information This document has undergone significant changes and should be reviewed in its entirety.