

1. Identification

Product identifier AZTEC® HC

Other means of identification

SDS number 466

Recommended use Organophosphate insecticide. For control of corn rootworms, cutworms and other listed soil insect pests in corn.

Recommended restrictions This is a Restricted Use Pesticide and is for use in the SmartBox® enclosed system.

Product registration number 5481-577

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name AMVAC Chemical Corporation

Address 4100 E Washington Blvd
Los Angeles, CA 90023 USA

Telephone AMVAC Chemical Corp 323-264-3910
AMVAC Chemical Corp 323-268-1028 (FAX)

Website www.Amvac-Chemical.com

E-mail CustServ@Amvac-Chemical.com

Emergency phone number Medical 888-681-4261
CHEMTREC® (USA+Canada) 800-424-9300
Product Use 888-462-6822
CHEMTREC® (Outside USA) +1-703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Acute toxicity, oral Category 3
Acute toxicity, inhalation Category 2
Reproductive toxicity Category 2

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 Toxic if swallowed. Fatal if inhaled. Suspected of damaging fertility or the unborn child. 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 dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

Response If swallowed: Immediately call a poison center/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. Specific treatment is urgent (see this label). Rinse mouth. Collect spillage.

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

Disposal

SmartBox® containers should be returned to the manufacturer. Dispose of waste and residues in accordance with all applicable regulatory requirements.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

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.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS.**WARNING**

May be fatal if inhaled or swallowed. Do not breathe dust. Causes moderate eye irritation. Avoid breathing vapor or dust. Avoid contact with eyes, skin, and clothing. Wear a mask or pesticide respirator jointly approved by the Mine Safety and Health Administration and the National Institute for Occupational Safety and Health. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

3. Composition/information on ingredients**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Tebupirimphos	O-(2-tert-butylpyrimidin-5-yl) O-ethyl O-isopropyl phosphorothioate phostebupirim	96182-53-5	8.9
Cyfluthrin		68359-37-5	0.44

4. First-aid measures**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact

Do not rub eyes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. If there will be a delay in getting medical attention, rinse the eyes an additional 15 minutes.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. 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. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Drink one or two glasses of water and induce vomiting by touching back of throat with finger, or, if available, by administering syrup of ipecac. If syrup of ipecac is available, administer 1 tablespoonful (15 mL) of syrup of ipecac followed by 1 to 2 glasses of water. If vomiting does not occur within 20 minutes, repeat the dose once.

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. Dusts may irritate the respiratory tract, skin and eyes.

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 indotracheal tube. Keep victim under observation. Keep victim warm. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). 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. This product is a Cholinesterase Inhibitor. A physician should be contacted in all cases of exposure to the technical and its formulations.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

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

Use water spray to cool unopened containers. Dike and collect extinguishing water.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Ensure adequate ventilation. 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

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Shovel the material into waste container. Prevent product from entering drains. Clean surface thoroughly to remove residual contamination. Scrub contaminated area with detergent and bleach solution.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

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

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. Minimize dust generation and accumulation. Do not breathe dust. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Keep product away from food, drink, cosmetics, and tobacco products.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. 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

No exposure limits noted for ingredient(s).

Biological limit values

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

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. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

For prolonged or repeated skin contact use suitable protective gloves.

Other

Wear suitable protective clothing.

Respiratory protection

Wear respirator with dust filter.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Keep away from food and drink. 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

Physical state

Solid.

Form

Powder. Granular.

Color

Gray, tan, or reddish

Odor

Slight onion-like odor

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water)

negligible solubility

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	38 - 43 lb/ft ³

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	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong bases. Methanol.
Hazardous decomposition products	Not established.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Fatal if inhaled.
Skin contact	Not irritating.
Eye contact	May be irritating to eyes.
Ingestion	Toxic if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Dusts may irritate the respiratory tract, skin and eyes.

Information on toxicological effects

Acute toxicity Fatal if inhaled. Toxic if swallowed.

Product	Species	Test Results
AZTEC® HC		
Acute		
Dermal		
<i>Dust</i>		
LD50	Rat	> 5050 mg/kg (Toxicity Category IV)
Inhalation		
<i>Dust</i>		
LC50	Rat	> 0.05 mg/l male/female (Toxicity Category II)
Oral		
<i>Dust</i>		
LD50	Rat	273 mg/kg female (Toxicity Category II)
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Irritation Corrosion - Skin		
AZTEC® HC		, (Toxicity Category IV) Result: non-irritating Species: Rabbit Organ: Skin
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Eye		
AZTEC® HC		, (Toxicity Category IV) Result: Minimally irritating Species: Rabbit Organ: eye

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Skin sensitization
AZTEC® HC

, Not a sensitizer

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Cyfluthrin (CAS 68359-37-5)		
Aquatic		
Crustacea	LC50 Water flea (Daphnia magna)	0 - 0.0005 mg/l, 48 hours
Fish	LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss)	0.0005 - 0.0007 mg/l, 48 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Cyfluthrin 5.94

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 component.

13. Disposal considerations

Disposal instructions Dispose of spilled contents in accordance with all applicable local/regional/national/international regulations. Return the damaged SmartBox® container to AMVAC Chemical Corporation. See box label for more complete instructions. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

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 Return unused product and empty SmartBox(R) containers containing residues to AMVAC Chemical Corporation. See the label on the box for more complete instructions.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty SmartBox® containers should be returned to AMVAC Chemical Corporation per instructions provided. See the label on the container for more complete information.

14. Transport information

DOT

UN number UN2783

UN proper shipping name Organophosphorus pesticides, solid, toxic (Tebupirimphos)

Transport hazard class(es)

Class 6.1(PGIII)

Subsidiary risk -

Label(s) 6.1

Packing group III

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions IB8, IP3, N77, T1, TP33

Packaging exceptions 153

Packaging non bulk 213
Packaging bulk 240

IATA

UN number UN2783
UN proper shipping name Organophosphorus pesticides, solid, toxic (Tebupirimphos)
Transport hazard class(es)
Class 6.1(PGIII)
Subsidiary risk -
Label(s) 6.1
Packing group III
Environmental hazards No.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

UN number UN2783
UN proper shipping name Organophosphorus pesticides, solid, toxic (Tebupirimphos)
Transport hazard class(es)
Class 6.1(PGIII)
Subsidiary risk -
Label(s) 6.1
Packing group III
Environmental hazards
Marine pollutant No.
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 applicable.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations

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.

References

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 #

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Further information

Not available.

HMIS® ratings

Health: 4*
Flammability: 0
Physical hazard: 0

NFPA ratings

Health: 4
Flammability: 0
Instability: 0

Disclaimer

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