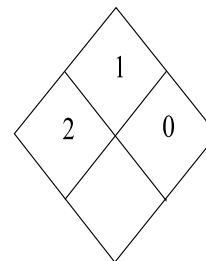




MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: AZTEC® HC**GENERAL USE:** Insecticide**CHEMICAL FAMILY:** Organophosphate**PRODUCT DESCRIPTION:** Gray, tan or reddish granule with a slight onion-like odor**EPA REGISTRATION NUMBER:** 5481-577**MSDS NUMBER:** 466_3**CURRENT REVISION DATE:** 15 JANUARY 2015**MANUFACTURER:****AMVAC CHEMICAL CORPORATION****4100 E. Washington Blvd.****Los Angeles, CA 90023-4406****PHONE: 323-264-3910****FAX: 323-268-1028****EMERGENCY TELEPHONE NUMBERS:****PRODUCT USE:** 888-462-6822**TRANSPORTATION (24 HOURS)****CHEMTREC®:** 800-424-9300**OTHER (24 HOURS)****MEDICAL:** 888-681-4261

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	WT %	CAS No.
Tebupirimphos	8.98%	96182-53-5
Cyfluthrin	0.36%	68359-37-5
Other ingredients (Includes crystalline silica (quartz))	90.66%	(14808-60-7)

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

COMPONENT	HAZARD	OSHA PEL*	ACGIH TLV*
Crystalline silica(quartz)	Pulmonary fibrosis, silicosis	0.1 mg/m3 (respirable)	0.025 mg/m3 (respirable)

* Exposure Limits 8 hrs. TWA

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING! Contains an organophosphorus insecticide and a pyrethroid insecticide. Can be toxic by ingestion. May cause skin and eye irritation. Keep away from food, pets, and children.

Product is toxic to fish and wildlife. Keep out of water sources.

POTENTIAL HEALTH EFFECTS

ROUTE(S) OF ENTRY: May be fatal if absorbed through the eye or skin, is ingested or is inhaled. May produce acute cholinesterase depression.

SIGNS OF ACUTE OVEREXPOSURE: Symptoms of overexposure to Tebupirimphos include weakness, headache, tightness in chest, blurred vision, non-reactive pinpoint pupils, salivation, sweating, nausea, vomiting, diarrhea, and abdominal cramps. In extreme cases unconsciousness, convulsions, severe respiratory depression and death may occur. In addition, overexposure to the pyrethroid in this formulation (Cyfluthrin) may cause skin irritation and produce symptoms such as itching, skin reddening or rash. A tingling or burning sensation on the surface of the skin (known as paresthesia) may also result from skin contact. This is a frequently reported symptom and usually subsides within 24 hours after onset (usually within 2-12 hours of overexposure). Mucous membrane irritation involving the nose, throat and upper respiratory tract may occur from inhalation of the pyrethroid.

SIGNS OF CHRONIC OVEREXPOSURE: Repeated exposures to small doses of Tebupirimphos and other organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

CARCINOGENICITY: Laboratory studies have shown no carcinogenic and reproductive effects in laboratory animals for the two active ingredients.. Crystalline silica, a component of one of the formulation ingredients, is listed as a carcinogen.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Preexisting conditions which lower cholinesterase levels increase vulnerability to cholinesterase depression. These include: (for plasma) genetic cholinesterase deficiency; advanced liver disease; chronic alcoholism; malnutrition; dermatomyositis; existing toxicity from exposure to carbon disulfide; benzalkonium salts, organic mercury compounds, ciguatoxins or solanines; and (for RBC) hemolytic anemias.

4. FIRST AID MEASURES

EYES: Immediately flush the eyes with copious amounts of clear, cool running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. Contact a physician immediately. If there will be a delay in getting medical attention, rinse the eyes for at least another 15 minutes.

INHALATION: Remove victim to fresh air. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen. Contact a physician immediately. Be sure the contact areas are clean to prevent contamination of the rescuer.

INGESTION: If ingestion is suspected, call a physician or poison control center. 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. Do not induce vomiting or give anything by mouth to an unconscious person.

SKIN: Immediately flush all affected areas with large amounts of clear water for at least 15 minutes. Remove contaminated clothing. Do not attempt to neutralize with chemical agents. Wash clothing before reuse. If skin irritation develops, contact a physician immediately.

NOTE TO PHYSICIANS: This product contains an Organophosphate (OP) Insecticide (Tebupirimfos). 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. Moderately severe poisoning: use 0.4-2.0 mg in adults or 0.05 mg/kg in children. Repeat every 15 minutes until atropinization is achieved. Severe poisoning may require larger doses. Cholinergic toxicity may recur as atropinization wears off; monitor patient closely. Draw blood for RBC and plasma cholinesterase. In addition, Pralidoxime (2-PAM) is indicated during the first 36 hours in severe poisonings. Slow IV administration (no less than 2 minutes) of 1 gm in adults or 20-50 mg/kg in children may be repeated in 1 to 2 hours if muscle weakness, twitching, and/or respiratory depression persist. Avoid morphine, aminophylline, phenothiazines, reserpine, furosemide and ethacrynic acid. Watch for pulmonary edema which may develop in serious cases of poisoning even after 24 hours. At first sign of pulmonary edema, place patient in oxygen tent and treat symptomatically.

Bathe and shampoo contaminated skin and hair. If ingested, empty stomach; activated charcoal is useful to further limit absorption. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small children) followed by water (2 glasses for adults, 1 glass for 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.



5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point:	Not applicable (product is a solid)
Autoignition Temperature:	Not applicable
Flammable Limits:	Not applicable

EXPLOSIVITY: Not applicable

5. FIRE FIGHTING MEASURES, cont'd

HAZARDOUS COMBUSTION PRODUCTS: This product may emit hazardous fumes of an unknown composition if the product is heated to decomposition temperatures in a direct flame.

EXTINGUISHING MEDIA: Water; Dry Chemical

FIRE FIGHTING INSTRUCTIONS: Keep out of smoke. Cool exposed containers with water spray. Fight fire from upwind position. Use self-contained breathing equipment. Contain runoff to prevent entry into sewers or waterways. Equipment or materials involved in pesticide fires may become contaminated.

6. ACCIDENTAL RELEASE MEASURES

GENERAL: Isolate the area and keep unauthorized people away. Do not walk through spilled material. Avoid breathing dusts and skin contact. Avoid generating dust (a fine water spray mist, plastic film cover, or floor sweeping compound may be used if necessary). Use recommended protective equipment. Carefully sweep up the spilled material. Place in covered container for reuse or disposal. Scrub contaminated area with detergent and bleach solution. Rinse with water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper disposal. Contaminated soil may have to be removed and disposed. Do not allow material to enter streams, sewers, or other waterways.

7. HANDLING AND STORAGE

HANDLING: Prevent skin contact. Do not breathe fumes. Wear appropriate personal protective equipment (See Section 8). Wash thoroughly and change clothes after handling. Keep product away from food, drink, cosmetics, and tobacco products. See product label for more detailed handling procedures.

STORAGE: Store in a cool, dry area designated specifically for pesticides. do not store near any materials intended for use or consumption by humans or animals.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Maintain exposure levels below applicable exposure limits through the use of general and local exhaust ventilation.

RESPIRATORY PROTECTION: Under normal conditions of use, respiratory protection is not needed; however, if use conditions lead to excessive concentrations of airborne dust, use a properly FIT-TESTED NIOSH/MSHA approved respirator fitted with organic vapor cartridges and a particulate prefilter. Specific use regulations are listed on the label.

SKIN PROTECTION: Avoid skin contact. Wear long sleeves and trousers, and chemical-resistant gloves, such as nitrile, to prevent dermal exposure.

EYE PROTECTION: Goggles should be used to prevent dust from getting into the eyes.

OTHER PROTECTION: There should be an eyewash station and a safety shower in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Solid granule
APPEARANCE:	gray, tan or reddish
ODOR:	Slight onion-like odor
BOILING POINT:	Not applicable to product
FREEZING/MELTING POINT:	Not applicable to product
BULK DENSITY:	38-43 lb/cu. ft.
VAPOR PRESSURE:	Not established for a.i.'s
VAPOR DENSITY:	Not applicable (air = 1)
SOLUBILITY (WATER):	negligible solubility
SOLUBILITY (OTHER):	Aliphatic and aromatic solvents, ketones and halogenated solvents (a.i.'s)
pH:	Not measured - minimal solubility in water (a.i.'s)
PARTITION COEFFICIENT (O/W):	Not available

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY (Conditions to avoid): Product is stable under normal use conditions.

INCOMPATIBILITY: Strong oxidizers, strong acids and strong bases; may react with methanol.

HAZARDOUS DECOMPOSITION PRODUCTS: Not established

HAZARDOUS POLYMERIZATION: This product will not polymerize.



11. TOXICOLOGICAL INFORMATION

GENERAL: The following acute toxicity data is available for this product:

INGESTION:	Oral LD ₅₀ (rat):	273mg/kg (female) Tox Cat II
INHALATION:	Inhalation LC ₅₀ (rat):	>0.05mg/L (male/female) Tox Cat II
DERMAL:	Dermal LD ₅₀ (rat):	>5050 mg/kg Tox Cat IV
IRRITATION:	Eye irritation (rabbit):	Minimally irritating, Tox Cat IV
	Skin irritation(rabbit):	Non-irritating, Tox Cat IV
SENSITIZATION:	Skin sensitization: (guinea pig)	Not a sensitizer

TERATOGENICITY: Tebupirimphos was not a primary developmental toxicant in rats and rabbits. Developmental effects were seen in rabbits but were secondary to maternal toxicity. Cyfluthrin was not a primary developmental toxicant in rats and rabbits. Developmental effects were seen but considered secondary to maternal toxicity.

MUTAGENICITY: Neither Tebupirimphos nor Cyfluthrin were mutagenic or genotoxic in a battery of in vitro and in vivo tests.

CARCINOGENICITY: Neither Tebupirimphos nor Cyfluthrin were carcinogenic in lifetime feeding studies in rats and mice. Respirable crystalline silica, present at less than 0.1% in the formulation, has been found to be a carcinogen. One of the ingredients has been classified as a Group C possible human carcinogen based on limited animal data and no human data.

REPRODUCTIVE TOXICITY: Tebupirimphos was not a primary reproductive toxicant in a two-generation reproduction study in rats. Reproductive effects were observed only at doses that caused systemic toxicity in parental animals.

Cyfluthrin caused toxicity in offspring at doses producing systemic toxicity in adult rats.

TOXICOLOGICAL SYNERGISTIC PRODUCTS: No data is available.

12. ECOLOGICAL INFORMATION

GENERAL: Based on information available on the active ingredients of this formulation, this product is expected to be toxic to fish and other wildlife. Keep out of any body of water. Do not contaminate water when disposing of equipment washwaters or wastes.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Pesticide wastes are acutely hazardous. 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, check with EPA, national, State, and local authorities for the current regulations applicable to your area. Open dumping is prohibited.

CONTAINER DISPOSAL: Empty containers should not be reused. They should be disposed as a hazardous waste. See the label on the container for more complete information. Check with EPA, national, State, and local authorities for the current regulations applicable to your area.

**14. TRANSPORTATION INFORMATION**

DOT CLASS:	6.1
UN NUMBER:	UN2783
IMDG CLASS (sea):	6.1
IATA CLASS (air):	6.1
MARINE POLLUTANT:	Not listed
PACKING GROUP:	III
HAZARD LABEL(S):	Toxic
PROPER SHIPPING NAME(S):	Organophosphorus pesticide, solid, toxic
REPORTABLE QUANTITY:	No

NOTE: The classification of this product is based on the fact that the dust criteria found in 49CFR§173.132(b)(3) will not be met and therefore the LC₅₀ is not applicable.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: 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.

SARA TITLE III DATA**Section 311 & 312 Hazard Categories:**

Immediate Health Hazard:	Yes
Delayed Health Hazard:	Yes
Fire Hazard:	No
Reactive Hazard:	No
Sudden Pressure Release Hazard:	No

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals: (CAS 68359-37-5) - 0.36%

CERCLA/EHS REPORTABLE QUANTITIES (RQ): None

STATE REGULATIONS:

CALIFORNIA (Proposition 65): Warning: This product contains a chemical known to the State of California to cause cancer - Crystalline silica (quartz).

16. OTHER INFORMATION**MSDS STATUS:**

Date This Revision: 15 January, 2015

Date Previous Revision: 3 November 2014

Person Responsible for Preparation: Gary A. Braden

**16. OTHER INFORMATION, cont'd**

REASONS FOR REVISION: Product name has been changed throughout the MSDS to reflect the final name of the product for commercial use.

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.

ABBREVIATIONS:

ACGIH	-	American Conference of Governmental Industrial Hygienists
ADR	-	European <u>A</u> greement Concerning the International Carriage of <u>D</u> angerous Goods by <u>R</u> oad
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 Administration
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act

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