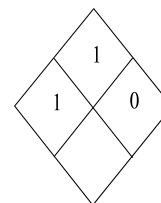


## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



**PRODUCT NAME:** AMBUSH® 25W Insecticide Wettable Powder; AMBUSH®  
25W Insecticide Water Soluble Pack

**GENERAL USE:** Insecticide

**PRODUCT DESCRIPTION:** Off-white powder

**EPA Registration Number:** 5481-502; 5481-503

**MSDS No.:** 297\_4

**MSDS Revision Date:** 16 June, 2010

**MANUFACTURER:**  
AMVAC CHEMICAL CORPORATION  
4100 E. Washington Blvd.  
Los Angeles, CA 90023-4406  
Ph: 323-264-3910  
FAX: 323-268-1028

**EMERGENCY TELEPHONE NUMBERS:**  
**MANUFACTURER:** 323-264-3910  
**TRANSPORTATION (24 HOURS)**  
**CHEMTREC:** 800-424-9300  
**OTHER (24 HOURS)**  
**AMVAC:** 323-264-3910

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	Typical %	CAS No.
Permethrin Technical	25%	52645-53-1
Amorphous Silica	30%	7631-86-9
Inert Ingredients	45%	

#### OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

COMPONENT	HAZARD	OSHA PEL*	ACGIH TLV*
Permethrin	Eye irritant		
Amorphous Silica (Total dust)	Lung fibrosis	6 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

\* Exposure Limits 8 hrs. TWA

AMBUSH is a registered trademark of a Syngenta Group Company.

3. HAZARDS IDENTIFICATION

---

**EMERGENCY OVERVIEW:**

**CAUTION: May cause eye and skin irritation. Harmful if swallowed. Avoid inhaling dust. Do not contaminate feed or foodstuffs.**

**KEEP OUT OF REACH OF CHILDREN.**

**Toxic to fish and aquatic organisms.**

---

POTENTIAL HEALTH EFFECTS

**ROUTE(S) OF ENTRY:** Ingestion, inhalation, eye contact, and skin contact.

**SIGNS OF ACUTE OVEREXPOSURE:** A person suffering from acute exposure to this product may suffer from mild eye irritation. In addition, exposure to Permethrin may induce adverse effects on the nervous system. Symptoms include hypersensitivity, tremors, unsteady gait, and salivation. Other possible signs of overexposure include facial erythema (flushing) and facial skin tingling.

**SIGNS OF CHRONIC OVEREXPOSURE:** Prolonged exposure to high atmospheric concentrations of respirable dust of amorphous silica may cause non-progressive fibrosis of the lungs; amorphous silica does not cause silicosis.

**OTHER POTENTIAL HEALTH EFFECTS:** No evidence of mutagenic or teratogenic potential has been observed. EPA (2004) has evaluated the carcinogenic potential of Permethrin under its 'Review Draft of the Guidelines for Carcinogen Risk Assessment (1999)'. Permethrin has suggestive evidence of carcinogenicity but not sufficient to assess human carcinogenic potential.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known.

**CARE SHOULD BE EXERCISED IN HANDLING PERMETHRIN AND ITS FORMULATIONS**

---

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.

**4. FIRST AID MEASURES, cont'd**

**INHALATION:** Remove victim to fresh air. If breathing has ceased, clear the victim's airway and start artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Contact a physician immediately.

**INGESTION:** Induce vomiting immediately by giving two glasses of water and sticking a finger down throat. Never give anything by mouth to an unconscious person. Contact a physician immediately.

**SKIN:** Remove contaminated clothing. Wash thoroughly with soap and clean water. If a rash or any of the symptoms of acute exposure appear, contact a physician immediately.

**NOTE TO PHYSICIANS:** Treat symptomatically. For medical information contact your local, state or national poison control center. For other questions AMVAC Chemical Corporation is available 24 hours/day to answer questions on this product. The telephone number is 1-323-264-3910.

---

**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES**

Flash Point: Not applicable

Autoignition Temperature: Not applicable

Flammable Limits:

Lower flammable limit: None

Upper flammable limit: None

Flammability: This product contains a combustible liquid that will support fire if it is preheated (NFPA rating = 1)

**EXPLOSIVITY**

Mechanical Impact: Not available

Static Discharge: Not available

**HAZARDOUS COMBUSTION PRODUCTS:** This product may emit hazardous fumes of hydrogen chloride, carbon oxides and unidentified organic compounds when it is heated excessively or burned. **WEAR SELF-CONTAINED BREATHING APPARATUS.**

**EXTINGUISHING MEDIA:** Water fog, dry chemical, alcohol foam, or carbon dioxide.

**FIRE FIGHTING INSTRUCTIONS:** Do not breathe fumes. Wear complete firefighting gear, including protective gloves, eye protection and self-contained breathing apparatus. Wash clothing before reuse.

---

**6. ACCIDENTAL RELEASE MEASURES**

**GENERAL:** Keep out of water sources.

**SMALL or LARGE SPILL:** Sweep up or vacuum the product into a secure container for reuse or disposal.

---

**7. HANDLING AND STORAGE**

**HANDLING:** Keep this product cool and dry. Keep container closed. Store away from feed, food, and drink. Keep away from children and pets. Wash thoroughly after handling this product.

**STORAGE:** Store product in its original container in a cool, dry, locked place out of the reach of children.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Ventilation should be sufficient to keep the exposure below the TLV. Use of mechanical or local exhaust systems is recommended when dust formation is possible.

**RESPIRATORY PROTECTION:** For exposures outdoors that may exceed the TLV, a Dust/Mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) is required. For exposures in enclosed areas that may exceed the TLV, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) is required.

**SKIN PROTECTION:** Applicators and other handlers must wear long-sleeved shirt and long pants; waterproof gloves; and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining personal protection equipment (PPE). If no such instructions are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

**EYE PROTECTION:** Safety glasses with sideshields should be used whenever hazardous chemicals are being handled. Tight fitting chemical goggles should be worn whenever there is a chance of dusting from the product.

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

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:**

Solid

**APPEARANCE:**

Fine ground off white powder

9. **PHYSICAL AND CHEMICAL PROPERTIES, cont'd**

<b>ODOR:</b>	Odorless
<b>ODOR THRESHOLD:</b>	Not available
<b>BOILING POINT:</b>	Not applicable
<b>CRYSTALLIZATION POINT:</b>	Not available
<b>DENSITY:</b>	Not available
<b>BULK DENSITY:</b>	Not available
<b>VAPOR PRESSURE (mm/Hg):</b>	0.045 mPa (a.i.)
<b>VAPOR DENSITY:</b>	Heavier than air
<b>PERCENT VOLATILE BY VOLUME:</b>	Not applicable
<b>SOLUBILITY IN WATER:</b>	Dispersible
<b>SOLUBILITY (Other):</b>	Permethrin is soluble in aromatic and paraffinic solvents and alcohols
<b>PARTITION COEFFICIENT (O/W):</b>	The partition coefficient for Permethrin is 6.1 (log P)
<b>pH:</b>	7.5 (5% dispersion in water)
<b>EVAPORATION RATE:</b>	Not applicable

---

10. **STABILITY AND REACTIVITY**

**CHEMICAL STABILITY (Conditions to avoid):** This product is stable under normal storage and use conditions.

**INCOMPATIBILITY:** Oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** This product may emit hazardous fumes of hydrogen chloride, carbon oxides and unidentified organic compounds when it is heated excessively or burned. WEAR SELF-CONTAINED BREATHING APPARATUS when these conditions are present.

**HAZARDOUS POLYMERIZATION:** This product will not polymerize.

---

11. **TOXICOLOGICAL INFORMATION**

**GENERAL:** No information is available for the formulation. The following information is available for Permethrin Technical so the user can estimate the toxicological impact of the formulation:

<b>INGESTION:</b>	Oral LD <sub>50</sub> (rat):	> 2000 mg/kg
<b>DERMAL:</b>	Skin LD <sub>50</sub> (rabbit):	> 2000 mg/kg
<b>INHALATION:</b>	Inhalation LC <sub>50</sub> (rat):	2.3 mg/L (4 hr)
<b>SENSITIZATION:</b>	Skin sensitization: (guinea pig)	Not considered a sensitizer
<b>IRRITATION:</b>	Eye irritation(rabbit):	Moderate irritant (Toxic Category III)
	Skin irritation: (rabbit)	Mild irritant

**TERATOGENICITY:** No evidence of teratogenicity has been observed in laboratory testing.

**11. TOXICOLOGICAL INFORMATION, cont'd**

**MUTAGENICITY:** No evidence of mutagenicity has been observed in animal testing.

**CARCINOGENICITY:** No evidence of carcinogenicity has been observed. EPA (2004) has evaluated the carcinogenic potential of Permethrin under its 'Review Draft of the Guidelines for Carcinogen Risk Assessment (1999)'. Permethrin has suggestive evidence of carcinogenicity but not sufficient to assess human carcinogenic potential.

**REPRODUCTIVE TOXICITY:** No evidence of reproductive toxicity has been observed.

**TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** No data are available.

---

**12. ECOLOGICAL INFORMATION**

**GENERAL:** This pesticide is extremely toxic to fish and aquatic organisms. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply directly adjacent to potable water supplies. This pesticide is extremely toxic to bees, both on direct application and residues on flowering plants and weeds. Do not spray if bees are present.

---

**13. DISPOSAL CONSIDERATIONS**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed on site (by use according to the label) or at an approved waste disposal facility. Further information can be obtained from the EPA or the equivalent national, state and local agencies.

**CONTAINER DISPOSAL:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Check with EPA, national, State, and local authorities for the current regulations applicable to your area.

---

**14. TRANSPORTATION INFORMATION**

<b>DOT CLASS:</b>	Not regulated
<b>UN NUMBER:</b>	Not applicable
<b>IMDG CLASS:</b>	Not regulated
<b>IATA CLASS (air):</b>	Not regulated
<b>MARINE POLLUTANT:</b>	No
<b>PACKING GROUP:</b>	Not applicable
<b>HAZARD LABEL(s):</b>	None
<b>ADR CLASS (road):</b>	Not listed in ADR
<b>PROPER SHIPPING NAME(s):</b>	Not applicable
<b>REPORTABLE QUANTITY:</b>	No

**14. TRANSPORTATION INFORMATION, cont'd**

**PACKAGING**

**GENERAL DESCRIPTION:** 2 lb bags (6/box); 2 water soluble pouches/bag  
(6/box)

---

**15. REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS:** 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.

**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:** Permethrin (52645-53-1) - 25%

**CERCLA/EHS Reportable Quantities (RQ):** None

**STATE REGULATIONS:**

**CALIFORNIA (Proposition 65):** None

---

**16. OTHER INFORMATION**

**MSDS STATUS:**

**Date This Revision:** 16 June, 2010

**Date Previous Revision:** 21 October, 2005

**Person Responsible for Preparation:** Gary A. Braden

**REASONS FOR REVISION:** Annual Review. Changes were made in sections 3, 11, and 14 to reflect current knowledge about this product.

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

**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:**

a.i.	-	Active ingredient
ACGIH	-	American Conference of Governmental Industrial Hygienists
CERCLA	-	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	-	Department of Transportation
EPA	-	Environmental Protection Agency
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
IARC	-	International Agency for Research on Cancer
IATA	-	International Air Transport Association
IMDG	-	International Maritime Dangerous Goods
NTP	-	National Toxicology Program
OSHA	-	Occupational Safety and Health Agency
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act

---

This is the last page of this MSDS. There should be 8 pages.