



**Safety Data Sheet - GHS**

**1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY**

**PRODUCT NAME:** AVEO™ EZ NEMATOCIDE  
**EPA REGISTRATION NUMBER:** 59639-220  
**PRODUCT CODE:** 85000.935  
**PRODUCT DESCRIPTION:** Biological Seed treatment - Nematicide

**MANUFACTURER/DISTRIBUTOR**  
 VALENT U.S.A. LLC  
 P.O. Box 8025  
 1600 Riviera Avenue, Suite 200  
 Walnut Creek, CA 94596-8025

**EMERGENCY TELEPHONE NUMBERS**  
 HEALTH EMERGENCY OR SPILL (24 hr.):  
 (800) 892-0099  
 TRANSPORTATION (24 hr.): CHEMTREC  
 (800) 424-9300 or (202) 483-7616

**PRODUCT INFORMATION**  
 AGRICULTURAL PRODUCTS: (800) 682-5368

**2. HAZARDS IDENTIFICATION**

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA-required classifications on the product label. Certain sections of this SDS are superseded by federal law under EPA FIFRA for a registered pesticide. Please see Section 15, REGULATORY INFORMATION for an explanation.

**Classification** - (per U.S. OSHA 29 CFR 1910.1200 (Hazcom 2012))

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
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**Label elements**

**EMERGENCY OVERVIEW**

**WARNING**



**Hazard statements**  
 Harmful if inhaled

**Precautionary statements**

**Prevention**

Use only outdoors or in a well-ventilated area  
Avoid breathing dust/fume/gas/mist/vapors/spray

**Response**

**Eyes** None.

**Skin** None.

**Inhalation** IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

**Ingestion** None.

**FIRE** None.

**Spill** None.

**Storage**

None.

**Disposal**

None.

**Hazards not otherwise classified (HNOC)****Other Information**

<5% of the mixture consists of ingredient(s) of unknown toxicity

For information on Transportation requirements see Section 14.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	TRADE SECRET
Bacillus amyloliquefaciens strain PTA-4838	TRADE SECRET	16.5	*
Others	(Various CAS#s)	74	*

\* The chemical name, CAS number and/or exact percentage have been withheld as a trade secret

Other ingredients, which may be maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identities are 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 **(800) 892-0099** at any time.

### 4. FIRST AID MEASURES

**EMERGENCY NUMBER (800) 892-0099**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

**EYE CONTACT:**

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 CONTACT:**

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:**

Emergency Telephone: (800) 892-0099  
REVISION NUMBER: 5

SDS NO.: 0507  
REVISION DATE: 12/28/2017

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor. Do not give anything 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**NOTES TO PHYSICIAN:**

None

**5. FIRE FIGHTING MEASURES**

Flash point °C

Flash point °F

**NFPA RATING:**

Health:	1
Flammability:	1
Reactivity:	0
Special:	None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

**FIRE FIGHTING INSTRUCTIONS:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**VALENT EMERGENCY PHONE NUMBER: (800) 892-0099**

**CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300**

**OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION**

Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

**UN/NA NUMBER:** Not applicable      **EMERGENCY RESPONSE GUIDEBOOK NO.:** Not applicable

**Methods for cleaning up - In case of spill, soak it up immediately with suitable absorbent, such as sawdust or granular absorbent clay, and transfer collected materials to heavy-duty plastic drums and keep them for safe disposal. DO NOT WASH RESIDUES INTO DRAINS OR OTHER WATERWAYS.**

**7. HANDLING AND STORAGE**

**END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.**

**HANDLING:**

Ventilate. Avoid breathing mist or vapor at concentrations greater than the exposure limits. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product. Obey reasonable safety precautions and practice good housekeeping. For filling operations, respiratory protection may be recommended, particularly in enclosed areas. Wear personal protective equipment when handling this product. Remove PPE immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STORAGE:**

Store in the original container in secure area. Keep container tightly closed and away from heat, sunlight, and sources of flame. Do not allow to freeze. Do not mix material in food or drink containers. Do not contaminate food, water, or feedstuffs. Keep out of reach of children and animals. Do not store at temperatures below 32° F (0° C). If the product is exposed to temperatures below 32° F (0° C), thaw at room temperature to 50° F (10° C) or warmer and shake gently to unify the product.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.**

**Mixers, loaders, applicators and other handlers should refer to the product label before use for detailed information on personal protective equipment (PPE).**

**EYES & FACE:** Do not get this material in your eyes. Eye contact can be avoided by wearing safety goggles or a face shield.

**RESPIRATORY PROTECTION:** Mixers/loaders and applicators must wear: a NIOSH approved particulate respirator, with any R or P filter with NIOSH approved number prefix TC-84A; or a NIOSH approved powered air purifying respirator with a HE filter with NIOSH approval number prefix TC-21C.

**SKIN & HAND PROTECTION:** Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including long pants, long-sleeved shirt and shoes plus socks and chemical-resistant gloves. Remove contaminated clothing. Wash before reuse.

**ENGINEERING CONTROLS:** Engineering controls, such as ventilation, should be provided which maintain concentrations as low as practicable. Where adequate general ventilation is unavailable, use process enclosure, local exhaust ventilation or other engineering controls to control airborne levels. When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides[40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**EXPOSURE LIMITS**

Chemical Name	ACGIH TLV	8 Hr. TWA:	Manufacturer's Exposure Limits
Bacillus amyloliquefaciens strain PTA-4838	None	None	None
Others	None	None	None

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	Liquid	<b>Odor</b>	No information available
<b>Appearance</b>	No information available	<b>Odor threshold</b>	No information available
<b>Color</b>	Brown		

<u>PROPERTIES</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	7.30	25°C (1% w/v suspension)
<b>Melting point/freezing point</b>	No information available	
<b>Boiling point/boiling range</b>	No information available	
<b>Flash point</b>		
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limits in Air</b>		
<b>Upper flammability limits</b>	No information available	
<b>Lower flammability limit</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	No information available	

<b>Specific Gravity</b>	No information available
<b>Water solubility</b>	No information available
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity</b>	393.83 cSt @20°C 143.67 cSt @40°C
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Density</b>	1.205 g/ml (@20°C/20°C) Specific Gravity
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

This product is stable in normal handling and storing condition.

**Chemical stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition.

**Incompatible materials**

None known based on information supplied.

**Hazardous Decomposition Products**

None under normal use conditions.

**11. TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY:**

Oral Toxicity LD <sub>50</sub> (rats)	>5000 mg/kg	EPA Tox Category	IV
Dermal Toxicity LD <sub>50</sub> (rabbits)	>5050 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC <sub>50</sub> (rats)	>2.13 mg/L (4 h)	EPA Tox Category	IV
Eye Irritation (rabbits)	Minimally irritating	EPA Tox Category	IV
Skin Irritation (rabbits)	Non-irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Not available	EPA Tox Category	Not available

**CARCINOGEN CLASSIFICATION**

Chemical Name	IARC	OSHA - Select Carcinogens	NTP Carcinogen List
Bacillus amyloliquefaciens strain PTA-4838	Not listed	Not listed	Not listed
Others	Not listed	Not listed	Not listed

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

## 12. ECOLOGICAL INFORMATION

While no additional ecotoxicity effects have been determined for this mixture, it is recommended that this material be treated as hazardous material, and precautions be taken to ensure this material is not released into the environment. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark.

## 13. DISPOSAL CONSIDERATIONS

**END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.**

**PRODUCT DISPOSAL:** To avoid waste, use all material in the container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

**CONTAINER DISPOSAL:** Refer to pesticide label for proper container disposal instructions based on container type and size.

**DISPOSAL METHODS:** Check government regulations and local authorities for approved disposal of this material. Dispose of in accordance with applicable laws and regulations.

## 14. TRANSPORTATION INFORMATION

**DOT (ground) SHIPPING NAME:** Not regulated for domestic ground transport by U.S. DOT

**ICAO/IATA SHIPPING NAME:** Not regulated as Hazardous Materials/Dangerous Goods per IATA.

**IMDG SHIPPING NAME:** Not regulated as Hazardous Materials/Dangerous Goods per IMDG.

## 15. REGULATORY INFORMATION

### **EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:**

Pesticide products in the U.S. are registered by the EPA under FIFRA and are subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

### **EPA FIFRA SIGNAL WORD: CAUTION**

- **Keep out of reach of children.**
- **Hazards to humans & domestic animals**
- **Wash hands before eating, drinking, chewing, using tobacco or using the toilet.**
- **Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.**
- **Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.**

**PESTICIDE REGULATIONS:** 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.

**U.S. FEDERAL REGULATIONS:** Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

**Glycerol**  
TSCA Inventory List - Present

**SARA (311, 312):**  
 Immediate Health: Yes  
 Chronic Health: No  
 Fire: No  
 Sudden Pressure: No  
 Reactivity: No

**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. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

**16. OTHER INFORMATION**

**REASON FOR ISSUE:** Revised respiratory protection information in Section 8.  
**SDS NO.:** 0507  
**EPA REGISTRATION NUMBER:** 59639-220  
**REVISION NUMBER:** 5  
**REVISION DATE:** 12/28/2017  
**SUPERCEDES DATE:** 11/30/2017  
**RESPONSIBLE PERSON(S):** Valent U.S.A. LLC, Corporate EH&S, (925) 256-2803

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS 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 as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom").

The product label provides 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 FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

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