

### SECTION 1: PRODUCT AND COMPANY

Product identifier/Name: Vinagreen  
A horticultural vinegar biopesticide for non-selective control of herbaceous broadleaf weeds and weed grasses which surround food crops, non-food crops and non-production agricultural, farmstead, right-of-way, and institutional land sites.

Product Use:  
Manufactured by: Fleischmann's Vinegar Company, Inc.  
12604 Hiddencreek Way, Suite A  
Cerritos, CA 90703 USA  
Telephone: (562) 483-4600

Emergency Number: CHEMTREC: 1-(800) 424-9300 or 011-(703)527-3887

### SECTION 2: HAZARDS IDENTIFICATION

GHS Classification: Skin Irritant 2, Eye Damage 1

**DANGER**



Hazard Statements: H315: Causes skin irritation  
H318: Causes serious eye damage

#### Precautionary Statements:

Prevention: P264: Wash exposed skin thoroughly after handling  
P280: Wear protective clothing, protective gloves, eye protection, face protection

Response: P301+P330+P331: IF SWALLOWED: Rinse mouth. Do not induce vomiting.  
P302+P362+P352: IF ON SKIN (or hair): Rinse skin with plenty of water. Remove all contaminated clothing and wash it before reuse.  
P332+P313: If skin irritation occurs: Get medical advice/attention  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a poison center or doctor/physician.

Storage: P403: Store in a well-ventilated place.  
Disposal: None.

Hazards not otherwise classified: Prolonged or excessive inhalation may cause respiratory tract irritation.

### SECTION 3: COMPOSITION /INFORMATION ON INGREDIENTS

Chemical name	Concentration	CAS
Acetic acid	20%	64-19-7
Water	80% - 90%	7732-18-5

### SECTION 4: FIRST-AID MEASURES

Eye contact: Immediately flush eyes with plenty of water. If not removed promptly, will injure eye tissue, which may result in permanent damage, including blindness.

Skin contact: Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Contact causes skin irritation.

Inhalation: If exposed to excessive levels of fumes, remove to fresh air. Fumes are irritating to the nose, throat, and respiratory tract. Avoid breathing vapors or mists.

Ingestion: If swallowed, water should be consumed to dilute. Do not induce vomiting. Do not give emetics or baking soda. Contact a physician. Ingestion can irritate the mouth, throat, and stomach.

**SECTION 5: FIREFIGHTING MEASURES**

Extinguishing media: N/A  
 Specific Hazards: N/A  
 Special Fire Fighting Methods: N/A

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures: Protect skin and eyes from exposure. Avoid breathing vapor

Containment Methods & Clean up: INITIAL CONTAINMENT: Contain spilled material. Water may be used to dilute. Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements.

LARGE SPILLS PROCEDURE: Contain spilled material. Large spills may be neutralized with dilute alkaline solutions of soda ash or lime. Avoid runoff into storm sewers and ditches that lead to waterways. Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements.

SMALL SPILLS PROCEDURE: Water may be used to dilute. Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial and national requirements.

Environmental Precautions: Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

**SECTION 7: HANDLING AND STORAGE**

Precautions for safe handling: Provide good ventilation to prevent formation of vapor. Avoid breathing vapors, contact with eyes, skin and clothing. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities: Keep container closed when not in use. Store in a well ventilated place.

Incompatible products: Strong oxidizers, metals, strong bases.

**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**

Control Parameters: Operations with potential for generating high concentrations of fumes should be evaluated and controlled as necessary.

Exposure Limits: No permissible exposure limits (PEL) or threshold limit values (TLV) exist for vinegar. See table below for component materials.

Components	OSHA PEL (mg/m <sup>3</sup> )	NIOSH REL/IDLH (mg/m <sup>3</sup> )	ACGIH TLV/STEL (mg/m <sup>3</sup> )	Quebec (mg/m <sup>3</sup> )	Ontario TWA (mg/m <sup>3</sup> )	EU OELs (mg/m <sup>3</sup> )
Acetic Acid	25	25 / 125	25 / 37	25	25	25

Appropriate engineering controls: Emergency eye wash stations should be available in the immediate vicinity. General room ventilation should be maintained for operator comfort. Local exhaust ventilation may be necessary to control any air contaminants to stay within their TLVs during the use of this product.

Hand protection: Wear protective gloves as needed for handling.

Eye protection: Wear eye protection as needed for handling. Use goggles or face shield when splashing is likely.

Skin and body protection: General protective clothing impervious to this material is adequate

Respiratory protection: When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection. Under normal use conditions, with adequate ventilation, no special handling equipment is required.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Physical state:	Liquid
Odor:	Strong Vinegar
Odor threshold:	No data available
pH:	2.1 - 2.8
Melting point:	Vinegar @ 30F (Acetic Acid @ 62F)
Boiling point:	215F @ 760 mm Hg and 100 grain
Flash point:	Does not flash
Evaporation rate:	No data available
Flammability (solid, gas):	N/A
Upper/Lower Explosive Limit:	N/A
Vapor pressure:	1.4 mm Hg @ 300 grain and 70F
Relative vapor density at 20 C:	2.1 (Air = 1)
Relative density:	1.01 to 1.04 (water = 1)
Density:	1.01 to 1.04 kg/L
Solubility:	Complete
Partition coefficient:	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	0.894

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity:	No data available
Chemical stability:	Stable under normal conditions
Hazardous Reactions:	Contact with strong oxidizing agents or strong bases may result in the release of heat or gas.
Incompatible materials:	Water reactive materials, acetic anhydride, caustics, strong oxidizing materials, strong bases, carbonates
Hazardous decomposition products:	Decomposition will not occur if handled and stored properly.

**SECTION 11: TOXICOLOGICAL INFORMATION**

Routes of entry:	Inhalation, ingestion and skin contact
Symptoms (acute):	Respiratory irritation
Delayed effects:	No data available
Acute Toxicity:	No toxic effects are likely (other than contact-site irritation/damage).
Skin corrosion/irritation:	Solutions of 3.3% and 10% acetic acid produced primary dermal irritation index (PDII) scores of 0.5 and 1.1, respectively, when tested with rabbits. Irritating to the nose, throat, and respiratory tract. Avoid breathing vapors or mists.
Serious eye damage/irritation:	If not removed promptly, will injure eye tissue, which may result in permanent damage to cornea, including blindness.
Carcinogenicity:	No evidence of a carcinogenic effect
Mutagenicity:	No evidence of a mutagenicity effect
Teratogenicity:	No evidence of a teratogenicity effect
Sensitization:	No evidence of a sensitization effect
Reproductive:	No evidence of a Reproductive effect

**SECTION 12: ECOLOGICAL INFORMATION**

Overview:	This material is not expected to be harmful to the environment
Persistence and degradability:	Biodegrades readily under aerobic and anaerobic conditions.
Bioaccumulation:	No tendency to bioaccumulate.
Mobility in soil:	No data
Other adverse effects:	No data
Accute or chronic toxicity to aquatic organisms:	The low pH may result in acute ecotoxicity effects to organisms.

<b>Chemical name</b>	<b>CAS</b>	<b>Ecotoxicity</b>
Water	7732-18-5	No data available
Acetic Acid	64-19-7	Aquatic 96-h LC50 Flueggill Sunfish 75 mg/L Aquatic 96-h LC50 Mosquito Fish 251 mg/L Aquatic 96-h LC50 Fathead Minnow 79 mg/L Aquatic 24-h LC50 Daphnia 47 mg/L Aquatic 24-h EC50 at pH 7 Daphnia 6,000 mg/L Aquatic 48-h EC50 Daphnia 65 mg/L Aquatic Plants 8-day growth inhibition 4,000 mg/L

**Section 13: DISPOSAL CONSIDERATIONS**

Waste disposal recommendations: Dispose in accordance with local, state/provincial, and national requirements

**SECTION 14: TRANSPORT INFORMATION**

Transportation of Fleischmann's Vinegar's products covered by this SDS are subject to conditions set forth in Special Permit DOT-SP 16198. Specifically, the Special Permit provides that "food grade" (as defined by the FDA) bulk vinegar with up to 30% acetic acid that meets the exemption conditions stated in the Special Permit will not be a 49 CFR §171.8 hazardous substance. Additional guidance can be found in Special Permit DOT-SP 16198 or by contacting Fleischmann's Vinegar.

\* DOT-SP 16198 is solely applicable to Fleischmann's Vinegar's products and transporters of those products.

**SECTION 15: REGULATORY INFORMATION**

TSCA: All components of this product are listed on the TSCA inventory.  
 SARA 304 CERCLA Hazardous Substances: SARA 304 CERCLA reporting obligations exist for acetic acid (64-19-7) with a reportable quantity of 5000 lbs 100% acetic acid; (e.g., 16,667 lb of 30% acetic acid)  
 FDA (Food and Drug Administration): Vinegar is a GRAS (Generally Recognized as Safe) food ingredient.  
 Canada Disclosure List: Acetic acid (64-19-7)

**SECTION 16. OTHER INFORMATION**

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 Prepared by: Fleischmann's Vinegar Company