

1. Identification

Product identifier: Horticultural Vinegar
Product code: PMRA registration #30482
Supplier Name: Eco Solutions
1114 Lower Base Line
Milton, Ontario
L0P 1E0
Telephone: 905 864-8740
Emergency telephone number: 1-877-326-7658
Available hours: 9h-17h Monday to Friday
Recommended use: For spot weed control
Restrictions on use: For outdoor use only

2. Hazard identification

Signal word: DANGER

Product classification:



Skin corrosion-Category 1. Serious eye damage-Category 1. Health hazards not otherwise classified-Category 1 Corrosive.

Hazard statement(s): Causes severe skin burns and eye damage. Causes serious injury to the respiratory tract.

Precautionary statement(s)

Prevention: Do not breathe mist, vapors and spray. Wear protective gloves, protective clothing, eye and face protection. Wash hands thoroughly after handling and any other part of the body that may have been exposed to the product.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a doctor. IF IN

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EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. **IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local, regional, national and/or international regulations in force.

Other hazards: Moderately toxic by intravenous, intraperitoneal route and subcutaneous routes.

See toxicological information, section 11

3. Composition/Information on ingredients

No	CAS No	Common name and synonyms	Concentration % (w/w)
1	64-19-7	Acetic acid, ethanoic acid	20
2	68439-46-3	Alcohol ethoxylates based on a C9-11 synthetic alcohol	3

4. First-aid measures

If swallowed, irritation, any type of overexposure or symptoms of overexposure occur during use of the product or persists after use, immediately contact a **POISON CENTER**, an **EMERGENCY ROOM** or a **PHYSICIAN**; ensure that the product safety data sheet is available.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation: Move exposed person to fresh air. Keep this person warm and lying down. Loosen tight clothing such as a collar, tie, belt or waistband. If

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not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Symptoms: This product is irritating and corrosive to skin, eyes, respiratory and digestive tracts. The severity of symptoms can vary depending on the exposure conditions (contact time, product concentration, etc.).

Effects (acute or delayed): Ingestion may cause severe burns to the mouth and digestive tract with possible perforation of the esophagus and stomach. Inhalation of high concentrations vapors can cause severe burns to the mouth and airways leading to the lungs. If on skin, this product causes severe burns. Contact with eyes may cause redness, tearing, edema, pain, corneal opacity and even blindness.

Immediate medical attention and special treatment: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media: Jets of water can facilitate the spread of fire.

Specific hazards arising from the hazardous product: May release dangerous fumes.

Hazardous combustion products: Carbon monoxide and dioxide.

Special protective equipment and precautions for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Protective equipment and emergency procedures: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosionproof equipment. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. The handling of this product must comply with local regulations. Store in an airtight container located in a dry, well ventilated and soil corrosion resistant cemented. Refer to the storage of the ROHS standards and NFC. Keep away from combustible materials and bases. If the product is stored with other dangerous substances, refer to the NFC segregation table. Containers for corrosive substances shall be kept closed, carry clear identification of their contents and be handled with care. Note: this product attacks certain types of plastic, rubber or coating.

Conditions for safe storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Incompatibility: Finely divided metals (Ba, Be, Na, P, Al, Mg etc). Bases. Strong oxidizing agents.

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8. Exposure controls/Personal protection

No	CAS No	Common name and synonyms	IDHL mg/m3	TWA mg/m3	STEL mg/m3	CEIL mg/m3
1	64-19-7	Acetic acid, ethanoic acid	Not available	25	37	Not available
2	68439-46-3	Alcohol ethoxylates	Not available	Not available	Not available	Not available

IDHL: Immediately Dangerous to Life or Health Concentrations

TWA : Time Weighted Average

STEL: Short -Term Exposure Limit

CEIL: Ceiling Limit

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyes/face: WEAR CONTACT LENSES. Wear anti-splash safety goggles.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.

Respiratory: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other: Wear protective clothing, gloves and appropriate safety shoes.

9. Physical and chemical properties

Physical state: Liquid

Colour: Translucent

Odour: Pungent

Odour threshold: < 0,074 ppm

pH: 2-3

Melting/Freezing point: > 0 °C (32 °F)

Initial boiling point/boiling range: > 100 °C (212 °F)

Flash point: Not applicable

Lower flammable/explosive limit: Not applicable

Upper flammable/explosive limit: Not applicable

Auto-ignition temperature: Not applicable

Evaporation rate: < 0,050 (ether=1)

Vapour pressure: < 17,535 mm Hg at 20 °C

Vapour density: < 1 (air =1)

Specific gravity: 1,009 kg/L at 20 °C (water = 1)

Solubility in water: Soluble

Partition coefficient - n-octanol/water: Not applicable

Decomposition temperature: Not available

Kinematic viscosity: Not available

10. Stability and reactivity

Reactivity: Stable under recommended conditions of storage and handling.

Chemical stability: The product is chemically stable under normal conditions of use.

Possibility of hazardous reactions: No dangerous or polymerization reactions will not occur under normal conditions of use.

Conditions to avoid: Keep away from incompatible products.

Incompatible materials: This product may attack metals.

Hazardous decomposition products: Carbon monoxide and dioxide.

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11. Toxicological information

No	CAS No	Common name and synonyms	(1) LD oral	(2) LD skin	(3) LD skin	(4) LC gases	(5) LC vapours	(6) LC dusts-mist
1	64-19-7	Acetic acid, ethanoic acid	3530	Not applicable	Not applicable	Not applicable	11.428	1.5
2	68439-46-3	Alcohol ethoxylates	2700	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

(1) LD₅₀ oral mg/kg

(2) LD₅₀ skin mg/kg

(3) LD₅₀ skin mg/kg

(4) LC₅₀ inhalation ppmV 4h gases

(5) LC₅₀ inhalation mg/l 4h vapours

(6) LC₅₀ inhalation mg/l 4h dusts-mist

Routes of exposure: This product is not absorbed in the body, it exerts a local action that destroys tissue.

Symptoms: This product is irritating and corrosive to skin, eyes, respiratory and digestive tracts. The severity of symptoms can vary depending on the exposure conditions (contact time, product concentration, etc.).

Delayed and immediate effects: Ingestion may cause severe burns to the mouth and digestive tract with possible perforation of the esophagus and stomach. Inhalation of high concentrations vapors can cause severe burns to the mouth and airways leading to the lungs. If on skin, this product causes severe burns. Contact with eyes may cause redness, tearing, edema, pain, corneal opacity and even blindness.

No	CAS No	Common name and synonyms	IARC	ACGIH	Mutagenicity	Effect on reproduction
1	64-19-7	Acetic acid, ethanoic acid	4	A5	The data do not allow for an adequate assessment of mutagenic effects.	The data do not allow for an adequate evaluation of the effects on reproduction.
2	68439-46-3	Alcohol ethoxylates	4	A5		

Cancer classification under IARC (International Agency for Research on Cancer)

Group 1: carcinogenic to humans.

Group 2A: probably carcinogenic to humans.

Group 2B: possibly carcinogenic to humans.

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Group 3: not classifiable as to its carcinogenicity to humans.

Group 4: probably not carcinogenic to humans.

Cancer classification under ACGIH (American Conference of Governmental Industrial Hygienists)

Group A1: confirmed human carcinogen.

Group A2: suspected human carcinogen.

Group A3: confirmed animal carcinogen with unknown relevance to humans.

Group A4: not classifiable as a human carcinogen.

Group A5: not suspected as a human carcinogen.

12. Ecological information

No	CAS No	Common name and synonyms	%	Persistent	Bio-accumulation	Aquatic ecotoxicity
1	64-19-7	Acetic acid, ethanoic acid	20.00	No	No	No
2	68439-46-3	Alcohol ethoxylates	3.00	No	No	No

No	CAS No	Common name and synonyms	%	Ecotoxicity for aquatic organisms-Short term	Ecotoxicity for aquatic organisms-Long term	Environmental effects
1	64-19-7	Acetic acid, ethanoic acid	20.00	No known adverse effect to aquatic life.	No known adverse effect to aquatic life.	No known adverse effect to the environment.
2	68439-46-3	Alcohol ethoxylates	3.00	No known adverse effect to aquatic life.	No known adverse effect to aquatic life.	No known adverse effect to the environment.

13. Disposal considerations

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

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14. Transport information

	TDG	DOT	IMDG	IATA
UN number	2790	2790	2790	2790
Proper shipping name	ACETIC ACID SOLUTION	ACETIC ACID SOLUTION	ACETIC ACID SOLUTION	ACETIC ACID SOLUTION
Transport hazard class(es)	8	8		8
Packing group	III	III		III

Other information

Marine pollutant: No

IMDG: Not applicable

Exemption for limited quantity: 5 L

In accordance with the Canadian Transport of Dangerous Goods regulations by Road, we use the 1.17 exemption when applicable. In accordance with 49 CFR article 172.315 for transportation by a mode other than air, we use the Limited quantities exemption when applicable.

Special precautions: Not applicable

Others exemptions: No other exemption.

15. Regulatory information

Canada

No	CAS No	Common name and synonyms	%	DSL	NDSL	NPRI
1	64-19-7	Acetic acid, ethanoic acid	20.00	X		X
2	68439-46-3	Alcohol ethoxylates	3.00	X		X

United-States

No	CAS No	Common name and synonyms	%	TSCA	PROP-65	Right to Know
1	64-19-7	Acetic acid, ethanoic acid	20.00	X		X
2	68439-46-3	Alcohol ethoxylates	3.00	X		X

The customer is responsible for determining the PPE (personal protection equipment) code for this material.

The classification of the product and the SDS were developed in accordance with HPR and HazCom 2012.

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16. Other information

Date: 2019-08-14

Version: 1

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