

Section 1: Identification

COMPANY:	Sportsman Consulting, LLC DBA Vinmetrica 6084 Corte del Cedro, Suite 105 Carlsbad, CA 92011
PRODUCT NAME:	1M Malic Acid, L-Malic acid, SC-50-5; 0.40 g/L malic acid, SC-50-11; 0.0 g/L malic acid, SC-50-16
SYNONYMS:	L-Hydroxybutanedioic acid, (S)-(-)-2-Hydroxysuccinic acid
Recommended Use	Laboratory Chemicals
Uses advised against:	Not for food, drug, pesticide or biocidal product use
EMERGENCY PHONE:	+1-408-887-9230

Section 2: Hazard(s) Identification

Classification:

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive Toxicity: NA

Specific target organ toxicity (single exposure):

Target Organs – Central nervous system (CNS)

SIGNAL WORD:

HAZARD STATEMENTS:



Precautionary Statement(s):

Preventions:

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Response:

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/physician if you feel unwell.

Get medical advice/attention if you feel unwell.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

Dispose of contents/container according to Federal, State and Local Regulations.

Hazards not otherwise classified (HNOC):

None identified.

Section 3: Composition/Information on Ingredients

CHEMICAL	CAS NUMBER	WEIGHT %
Water	7732-18-5	87-99%
L-Malic acid	7681-11-0	0.4 to 13%
Potassium bitartrate	868-14-4	0.4

Section 4: First Aid Measures**Inhalation:**

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Skin Contact: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media: Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable Extinguishing Media: No information available

Flash Point: Not applicable

Method: No information

Autoignition Temperature: No information available

Explosion Limits

Upper: No data available

Lower: No data available

Sensitivity to Mechanical Impact: No information available

Sensitivity to Static Discharge: No information available

Specific Hazards Arising from the Chemical: Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products: Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Rating:

Health: 2 Flammability: 0 Instability: 0 Physical Hazards: n/a

Section 6: Accidental Release Measures

Personal Precautions: Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing.

Environmental Precautions: Should not be released into the environment. See section 12 for additional ecological information.

Methods for Containment and Clean Up: Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Handling: Wear personal protective equipment. Ensure adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

Storage: Keep containers tightly closed in a dry, cool and well ventilated place.

Section 8: Exposure Controls/ Personal Protection

Exposure Guidelines:

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Proprietary Ingredient	TWA: 0.01 ppm			

Engineering Measures: Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment:

Eye/Face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and Body Protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear
Odor: Odorless
Odor Threshold: No information available
pH: No information available
Melting Point: No information available
Boiling Point: No information available
Flash Point: Not applicable
Evaporation Rate: No information available
Flammability (solid, gas): None
Flammability or Explosive limits:
 Upper: No data available
 Lower: No data available
Vapor Pressure: 14 mmHg
Vapor Density: 0.7
Specific Gravity: 1.01 -1.1
Solubility: Soluble in water
Partition coefficient, n-octanol/water: No data available
Autoignition Temperature: No information available
Decomposition Temperature: No information available
Viscosity: No information available

Section 10: Stability and Reactivity

Reactive Hazard: None known, based on information available
Stability: Stable under ordinary conditions of use and storage.
Conditions to Avoid: Excess heat.
Incompatible Materials: None known
Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating gasses and vapors.
Hazardous Polymerization: Does not occur.
Hazardous Reactions: None under normal processing.

Section 11: Toxicological Information

Acute Toxicity:

Product Information: No acute toxicity information is available for this product

Component Information:

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	Not listed	Not listed
Malic acid	2779 mg/kg (Rat)	Not listed	Not listed
Potassium bitartrate	NA	NA	NA

Toxicologically Synergistic: No information available

Products

Delayed and immediate effects as well as chronic effects from short and long term exposure.

Irritation: May cause eye, skin, and respiratory tract irritation

Sensitization: No information available

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Malic Acid	7681-11-0	Not listed	Not listed	Not listed	Not listed	Not listed
Potassium bitartrate	868-14-4	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects: No information available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenicity: Teratogenic effects have occurred in experimental animals.

STOT – single exposure: None known

STOT – repeated exposure: None known

Aspiration hazard: No information available

Symptoms / effects, both acute and delayed: No information available

Endocrine Distruptor Information: No information available

Other Adverse Effects: Tumorigenic effects have been reported in experimental animals.

Section 12: Ecological Information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
L-malic Acid	-	Onchorhychus mykiss: LC50: 3200 ml/L/120h		

Persistence and Degradability: No information available

Bioaccumulation/Accumulation: No information available

Mobility:

Section 13: Disposal Considerations

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14: Transport Information

DOT: Not regulated
TDG: Not regulated
IATA: Not regulated
IMD/IMO: Not regulated

Section 15: Regulatory Information

US FEDERAL

TSCA: CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

SARA Codes

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

Proprietary ingredient is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 7732-18-5: No information available.

Canada - DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the

MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Proprietary ingredient is listed on the Canadian Ingredient Disclosure List.

Section 16: Other Information**Label First Aid:**

IN ALL CASES, CALL PHYSICIAN IMMEDIATELY. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Excess acid on skin can be neutralized with a 2% bicarbonate of soda solution. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. In all cases get medical attention immediately.

Product Use: Laboratory Reagent.

Disclaimer:

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