



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : Vinegar (40 to 100 grain)
 Other means of identification : 40 - 100 grain vinegar

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Food Product/Food Ingredient

1.3. Details of the supplier of the safety data sheet

Mizkan Americas, Inc.
 1661 Feehanville Dr., Suite 300
 Mount Prospect, IL 60056
 T (847) 590-0059
www.mizkan.com

Contact Name: David Bierdeman
 Director of Quality Assurance
 847-590-0059 ext. 1306

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300
 For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC - Day or Night.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Corr. 1A H314
 Serious Eye Damage 1 H318
 Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger
 Hazard statements (GHS-US) : H314 – May causes severe skin burns and may cause serious eye damage
 Precautionary statements (GHS-US) : P260 - Do not breathe mist, spray, vapors
 P264 - Wash exposed skin thoroughly after handling
 P280 - Wear protective gloves, protective clothing, eye protection
 P301 + P330 + P331 - If swallowed: rinse mouth. Do NOT induce vomiting
 P303 + P361 + P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P321 - Specific treatment (see Section 4 on this label)
 P363 - Wash contaminated clothing before reuse
 P405 - Store locked up
 P501 - Dispose of contents/container to comply with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

Vinegar (40 to 100 Grain)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Acetic Acid	(CAS No) 64-19-7	4 - 10	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Aquatic Acute 3, H402

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
- First-aid measures after eye contact : Immediately flush with large amounts of water, holding eyelids open, for at least 20 minutes. Repeat if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance if irritation persists.
- First-aid measures after ingestion : Drink plenty of water. Do not induce vomiting. Do not give emetics or baking soda. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Prolonged or excessive inhalation may cause respiratory tract irritation.
- Symptoms/injuries after skin contact : Prolonged contact with material may irritate skin.
- Symptoms/injuries after eye contact : Irritating to the eyes.
- Symptoms/injuries after ingestion : No hazard in normal use. If accidentally ingested in large quantities, may cause gastrointestinal distress.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Any. Use media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Material is not combustible.
- Reactivity : Stable under normal conditions of use.

5.3. Advice for firefighters

- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection to protect from hazardous combustion products/oxygen deficiencies.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with skin and eyes. Evacuate area.

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required. Wear PPE prevent skin and eye contact.
- Emergency procedures : Keep unauthorized personnel away.

6.2. Environmental precautions

Avoid release to the environment : Dike for treatment or disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

6.3. Methods and material for containment and cleaning up

- For containment : Contain spilled material. Water may be used to dilute.

Vinegar (40 to 100 Grain)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes.
Hygiene measures : Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a dry and well-ventilated place.
Incompatible products : Store away from strong oxidizing materials. Strong bases.

7.3. Specific end use(s)

Food Product/Food Ingredient

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Vinegar	
ACGIH	Not Established
OSHA	Not Established

Acetic Acid (64-19-7)		
ACGIH	ACGIH (TWA) (mg/m ³)	25 mg/m ³
ACGIH	ACGIH (TWA) (ppm)	10 ppm
ACGIH	ACGIH (STEL) (mg/m ³)	37 mg/m ³
ACGIH	ACGIH (STEL) (ppm)	15 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	25 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	10 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	25 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	37 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	15 ppm

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. General ventilation used in combination with local exhaust as necessary to control airborne contaminants to below acceptable exposure guidelines.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : In case of repeated or prolonged contact wear gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

Respiratory protection : If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Appropriate color for type of vinegar
Odor : Appropriate odor for type of vinegar
Odor threshold : No data available
pH : 2.3 at 10% acetic acid (calculated)
Relative evaporation rate (butyl acetate=1) : No data available

Vinegar (40 to 100 Grain)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Melting point	: No data available
Freezing point	: -3 °C (26°F) at 10% acetic acid (calculated)
Boiling point	: 101 °C (214°F) @ 760 mm Hg at 10% acetic acid (calculated)
Flash point	: Not Applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not Applicable
Vapor pressure	: 16.9 mm Hg @ 68°F at 10% acetic acid (calculated)
Relative vapor density at 20 °C	: 1.01 at 10% acetic acid (Water = 1)
Relative density	: No data available
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: Incompatible with strong oxidizers.
Explosive limits	: Not Applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Refer to Section 10 on Incompatible Materials.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases.

10.6. Hazardous decomposition products

Combustion of surrounding materials may produce carbon monoxide and other harmful substances.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Acetic Acid (64-19-7)	
LD50 oral rat	3310 mg/kg
LD50 dermal rabbit	1130 mg/kg
ATE US (oral)	3310.000 mg/kg body weight
ATE US (dermal)	1130.000 mg/kg body weight

Skin corrosion/irritation	: May cause severe skin burns and eye damage. pH: 2.3 at 10% acetic acid (calculated)
Serious eye damage/irritation	: May causes serious eye damage pH: 2.3 at 10% acetic acid (calculated)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

Vinegar (40 to 100 Grain)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Prolonged or excessive inhalation may cause respiratory tract irritation.
Symptoms/injuries after skin contact	: Prolonged contact with material may irritate skin.
Symptoms/injuries after eye contact	: Irritating to the eyes.
Symptoms/injuries after ingestion	: No hazard in normal use.

SECTION 12: Ecological information

12.1. Toxicity

Acetic Acid (64-19-7)	
LC50 fish	88 mg/l
EC50 Daphnia	90.1 mg/l

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Vinegar (40 to 100 grain), concentrated (8028-52-2)	
Bioaccumulative potential	This product is not expected to bioaccumulate.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements.

SECTION 14: Transport information

In accordance with DOT
Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Vinegar (40 to 100 Grain)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Acetic Acid (64-19-7)	
Not listed on the United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	5000 lb

15.2. International regulations

CANADA

Vinegar (40 to 100 grain), concentrated (8028-52-2)	
WHMIS Classification	Class E - Corrosive Material

Acetic Acid (64-19-7)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class E - Corrosive Material

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

Acetic Acid (64-19-7)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Washington - Permissible Exposure Limits - TWAs

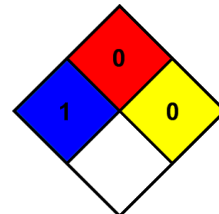
SECTION 16: Other information

Revision date	: 05/19/2015
Data sources	: ChemADVISOR, Inc.[https://www.chemadvisor.com]. GESTIS DNEL Database [http://dnel-en.itrust.de/nxt/gateway.dll/dnel_en/000000.xml?f=templates\$fn=default.htm\$vid=dneleng:ddbeng\$3.0].

Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Flam. Liq. 3	Flammable liquids Category 3
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H226	Flammable liquid and vapor
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H402	Harmful to aquatic life

NFPA health hazard	: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard	: 0 - Materials that will not burn.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Vinegar (40 to 100 Grain)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

HMIS III Rating

Health	: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	: 0 Minimal Hazard
Physical	: 0 Minimal Hazard

SDS US (GHS HazCom 2012)

Mizkan Americas, Inc. does not represent or warrant that any hazard listed herein is the only hazard which exists. Effects can be aggravated by the presence of other materials or this material may aggravate or add to the effects of other materials. This information represents a compilation of data drawn directly from various sources. As of the date of preparation of this document, the information is believed to be accurate to the best of our knowledge.

Mizkan Americas, Inc makes no warranty, express or implied, including (Without Limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular purpose or use. There are no warranties which extend beyond description of the face here of. Mizkan assumes no liability for any loss or damage incurred from the use or misuse of the product.

Mizkan has no control over the material once it leaves its possession. The User has the sole responsibility: (1) to evaluate the applicability of the information contained herein; (2) to determine the suitability of the materials or product for any use; (3) to establish the manner of safe handling, use or storage of the materials or product; and (4) for meeting all applicable and required safety and health standards.