1. Identification

1.1. Product identifier
Product Identity: Vinegar, all varieties
Alternate Names: Vinegar, all varieties

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use: See Technical Data Sheet.
Application Method: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet
Company Name: National Vinegar Company
P.O. Box 255
108 Chessen Lane
Alton, IL 62002

Emergency
24 hour Emergency Telephone No. (800) 783-3822
(618) 465-6532
Customer Service: National Vinegar Company (800) 783-3822
(618) 465-6532

2. Hazard(s) identification

2.1. Classification of the substance or mixture
No applicable GHS categories.

2.2. Label elements
Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.
No applicable GHS categories.

[Prevention]:
No GHS prevention statements

[Response]:
No GHS response statements

[Storage]:
No GHS storage statements

[Disposal]:
No GHS disposal statements
3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid</td>
<td>1.0 - 10</td>
<td>Flam. Liq. 3:H226</td>
<td>[1][2]</td>
</tr>
<tr>
<td>CAS Number: 0000064-19-7</td>
<td></td>
<td>Skin Corr. 1B: H314: 25% ≤ C &lt; 90%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2: H319: 10% ≤ C &lt; 25%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Corr. 1A: H314: C ≥ 90%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Irrit. 2: H315: 10% ≤ C &lt; 25%</td>
<td></td>
</tr>
</tbody>
</table>

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation
If vapors are inhaled extensively, exposed person should be removed to fresh air immediately. Seek medical attention if irritation continues.

Eyes
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin
In case of skin contact, flush immediately and thoroughly with water. Saturated clothing should be removed and washed. Seek medical attention if irritation continues.

Ingestion
If swallowed, water should be consumed to dilute. Do not induce vomiting. Do not give emetics or baking soda. Seek medical attention.

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

Overview
INHALATION: Avoid breathing vapors. Inhalation of vapors can cause irritation to respiratory tract.

SKIN: Contact may cause mild injury and burns from vinegar of 10% acetic acid and greater. Dilute solutions may cause dermatitis in some sensitive individuals.

EYES: Avoid contact with eyes. If not removed promptly, will injure eye tissue which may result in permanent damage, including blindness.

INGESTION: Concentrated vinegars may cause pain, irritation, and burns in mouth, esophagus, and stomach.

5. Fire-fighting measures

5.1. Extinguishing media
As appropriate for surrounding fire.
5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: Decomposition will not occur if handled and stored correctly.

5.3. Advice for fire-fighters
Vinegar will not burn.
ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up
Water may be used to dilute. Treat or dispose of waste material as a weak acid in accordance with all local, state, and national requirements.
Contain, dilute cautiously with water, and neutralize with soda ash or lime.

7. Handling and storage

7.1. Precautions for safe handling
Avoid breathing vapors. Avoid contact with eyes, skin and clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Handle containers carefully to prevent damage and spillage.
Incompatible materials: Strong oxidizing agents, strong bases
Store in a well-ventilated place.

7.3. Specific end use(s)
No data available.

8. Exposure controls and personal protection

8.1. Control parameters
Exposure

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000064-19-7</td>
<td>Acetic acid</td>
<td>OSHA</td>
<td>TWA 10 ppm (25 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA: 10 ppm STEL: 15 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>TWA 10 ppm (25 mg/m³) STEL 15 ppm (37 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>
Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000064-19-7</td>
<td>Acetic acid</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

**Respiratory**
None needed under normal use conditions with adequate ventilation.

**Eyes**
Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.

**Skin**
None needed for proper use in accordance with label direction. Where prolonged or frequently repeated contact could occur, use protective clothing or gloves to minimize skin contamination. Chemical impervious gloves required.

**Engineering Controls**
Good general ventilation should be sufficient.

**Other Work Practices**
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>2.2 @ 100 grain</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Below 26°F @ 100 grain</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>214°F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td><strong>Lower Explosive Limit</strong>: Not applicable</td>
</tr>
<tr>
<td></td>
<td><strong>Upper Explosive Limit</strong>: Not applicable</td>
</tr>
<tr>
<td>Vapor pressure (Pa)</td>
<td>16.9 mmHg @ 100 grain</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>2.1 (Air = 1)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.01 @ 100 grain</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Complete</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>Not available</td>
</tr>
<tr>
<td>% Volatile</td>
<td>100%</td>
</tr>
</tbody>
</table>

9.2. Other information

No other relevant information.
10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.

10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
Excessive heat and open flame.

10.5. Incompatible materials
Strong oxidizing agents, strong bases

10.6. Hazardous decomposition products
Decomposition will not occur if handled and stored correctly.

11. Toxicological information

Acute toxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LC50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LC50, mg/L/4hr</th>
<th>Inhalation Gas LC50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid - (64-19-7)</td>
<td>3,310.00, Rat - Category: 5</td>
<td>1,112.00, No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>16,000.00, Rat - Category: NA</td>
</tr>
</tbody>
</table>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>3</td>
<td>Causes mild skin irritation. (Not adopted by US OSHA)</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
Safety Data Sheet
Vinegar, all varieties

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<table>
<thead>
<tr>
<th>STOT-repeated exposure</th>
<th>---</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspiration hazard</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

12. Ecological information

12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid - (64-19-7)</td>
<td>79.00, Pimephales promelas</td>
<td>65.00, Daphnia magna</td>
<td>73.40 (96 hr), Navicula seminulum</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There is no data available on the preparation itself.

12.3. Bioaccumulative potential
Not Measured

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

Note: Product RQ (lbs) – Quantity containing the equivalent of 5,000 lbs of 100% acetic acid (e.g. 50,000 lbs of vinegar containing 10% acetic acid)

<table>
<thead>
<tr>
<th>14.1. UN number</th>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Applicable</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2. UN proper shipping name</th>
<th>DOT Hazard Class</th>
<th>IMO / IMDG</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3. Transport hazard</th>
<th>DOT Hazard Class</th>
<th>IMO / IMDG</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>
Safety Data Sheet
Vinegar, all varieties

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14.4. Packing group
Not Applicable

14.5. Environmental hazards
IMDG
Marine Pollutant: No

14.6. Special precautions for user
No further information

15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification
Not Regulated

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):
Acetic acid (5,000.00)

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):
Acetic acid

Pennsylvania RTK Substances (>1%):
Acetic acid
16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:
H226 Flammable liquid and vapor.
H314 Causes severe skin burns and eye damage.
H319 Causes serious eye irritation.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information is furnished without warranty, expressed or implied, except that it is accurate to the best of the preparer’s knowledge. The data on this sheet are related only to the specific material designated herein. The preparer assumes no legal responsibility.

End of Document