Section 1: Identification

Product Name: OSM Horticultural Vinegar  20% acetic acid

Recommended use: Acidifying agent, vegetation control

Details of the supplier of the safety data sheet
Supplier: OSM, Inc.
114 Broadway
Raynham, MA  02767
www.osm-inc.com
customerservice@osm-inc.com

Telephone (General): 888-473-6489

Emergency telephone number
CHEMTREC 800-424-9300
POISON CONTROL 800-222-1222

Section 2: Hazard Identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS

- This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200

Classification of the substance or mixture
OSHA HCS 2012

- Extremely irritating to the eyes. If not removed promptly, will injure eye tissue, which may result in permanent damage, including blindness - H318
- Contact causes skin irritation, may cause burns - H315
- Irritating to the nose, throat and respiratory tract - H335
- Can burn or irritate mucous membranes of mouth, throat, esophagus and stomach if ingested

Label elements
OSHA HCS 2012

HAZARD

Hazard statements
- Extremely irritating to the eyes. If not removed promptly, will injure eye tissue, which may result in permanent damage, including blindness - H318
- Contact causes skin irritation, may cause burns - H315
- Irritating to the nose, throat and respiratory tract - H335
- Can burn or irritate mucous membranes of mouth, throat, esophagus and stomach if ingested
Precautionary statements

- Avoid contact with strong oxidizing agents. Avoid contact with strong bases.
- Avoid handling conditions which may allow for leaks and spills of this material
- Do not permit personnel to handle this product without proper training and/or equipment

Prevention

- Avoid breathing mist
- Wash hands thoroughly after handling
- Use only outdoors
- Wear eye protection. Wear protective gloves and clothing.
- Wear protective gloves and clothing.

Response

- In case of fire: Use water spray, chemical foam, carbon dioxide or dry chemical
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- IF ON SKIN; Wash with plenty of soap and water
- IF skin irritation occurs: Get medical advice/attention

Storage/Disposal

- Dispose of content and/or container as a weak acid in accordance with local, regional, national, and/or international regulations
- FOR SPILL: Absorb with inert material and dispose of in accordance with applicable regulations
- Keep out of the reach of children
- Keep from freezing

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substance</th>
<th>Chemical name</th>
<th>CAS Identifier</th>
<th>% (weight)</th>
<th>HMIS Health rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>20</td>
<td>Eyes: 3, Skin: 2</td>
<td></td>
</tr>
</tbody>
</table>

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- Remove victim to fresh air.

Skin

- Wash skin thoroughly with soap and water. Seek medical attention if irritation persists. Remove contaminated clothing and shoes. Wash contaminated clothing before use.

Eye

- Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention.

Ingestion

- Get medical attention immediately. Give large quantities of water. Do not give emetics or baking soda. Never give anything by mouth to an unconscious person.

Section 5: Fire-Fighting Measures
Extinguishing media

Suitable Extinguishing Media
• Water spray, chemical foam, carbon dioxide or dry chemical

Unsuitable Extinguishing Media
• None known

Special hazards arising from the substance or mixture

Unusual Fire hazards
• Non flammable substance. None known

Advice for firefighters
• Use extinguishing media applicable to primary source of fire.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
• Wear eye protection as needed
• Wear protective gloves as needed
• Use a NIOSH/OSHA approved mask when spray mist is present
• Wear protective clothing as needed

Emergency Procedures

INITIAL CONTAINMENT
• Contain spilled material. Water may be used to dilute. Treat or dispose of waste material as a weak acid in accordance with local, state, and federal regulations

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 local, state, and federal regulations

SMALL SPILLS PROCEDURE
• Water may be used to dilute. Treat or dispose of waste material as a weak acid in accordance with local, state, and federal regulations

Environmental precautions
• Treat or dispose of waste material as a weak acid in accordance with local, state, and federal regulations

Methods and material for containment and cleaning up

Containment/Clean-up Measures
• Absorb with inert material and dispose of in accordance with applicable regulations

Section 7: Handling and Storage

Precautions for safe handling

Handling
• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations
• Keep out of the reach of children
• Avoid handling conditions which may allow for leaks and spills of this material
• Do not permit personnel to handle this product without proper training and/or equipment

Conditions for safe storage

Storage
• Keep out of the reach of children
**Section 8: Exposure Controls/Personal Protection**

Control parameters

**Exposure controls**

**Engineering**

**Measures/Controls**

- Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower. Local exhaust ventilation may be necessary to control any air contaminants to within their TLV's during use of this product.

**Personal Protective Equipment**

**Pictograms**

- **Respiratory**
  - In case of insufficient ventilation, wear suitable respiratory equipment

- **Eye/Face**
  - Wear safety goggles

- **Hands**
  - Wear protective gloves

- **Skin/Body**
  - Wear protective clothing

**General Industrial Hygiene Considerations**

- Handle in accordance with good industrial hygiene and safety practice.

**Environmental Exposure Controls**

- Follow best practice for site management and disposal of waste.

**Section 9: Physical and Chemical Properties**

**Information on Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Liquid</th>
<th>Boiling Point (°F)</th>
<th>217</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical form</strong></td>
<td>Liquid</td>
<td>Boiling Point (°F)</td>
<td>217</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Appropriate for vinegar</td>
<td>Melting Point (°F)</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>Clear solution</td>
<td>Volatility/VOL (%)</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Appropriate for vinegar</td>
<td>Solubility in H₂O</td>
<td>Complete</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>2.0 @ 30% acetic acid</td>
<td>Vapor Pressure (mm Hg)</td>
<td>15.6 mmHg @ 68°F</td>
</tr>
<tr>
<td><strong>Specific Gravity (H₂O=1)</strong></td>
<td>1.03</td>
<td>Vapor Density (Air=1)</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>N/A</td>
<td>Flash Point (°F)</td>
<td>Non-flammable</td>
</tr>
</tbody>
</table>

**Section 10: Stability and Reactivity**

**Reactivity**

- No dangerous reaction known under conditions of normal use.
Chemical stability
• Stable

Possibility of hazardous reactions
• Will not occur

Conditions to avoid
• Avoid handling conditions which may allow for leaks and spills of this material
• Do not permit personnel to handle this product without proper training and/or equipment

Incompatible materials
• Avoid contact with strong oxidizing agents. Avoid contact with strong bases.

Hazardous decomposition products
• From thermal reaction: oxides of carbon, fumes and smoke

Section 11: Toxicological Information

Information on toxicological effects

Routes of entry/exposure
• Eyes, Skin, Inhalation, Ingestion

Potential health effects

Inhalation
Acute
• Irritating to the nose, throat and respiratory tract
Chronic
• No data available

Skin
Acute
• Contact causes skin irritation, may cause burns
Chronic
• No data available

Eye
Acute
• Extremely irritating to the eyes. If not removed promptly, will injure eye tissue, which may result in permanent damage, including blindness
Chronic
• No data available

Ingestion
Acute
• Can burn or irritate mucous membranes of mouth, throat, esophagus and stomach if ingested
Chronic
• No data available

Section 12: Ecological Information

• Biodegrades readily under aerobic and anaerobic conditions. No tendency to bioaccumulate.

Section 13: Disposal Consideration

• Dispose of content and/or container as a weak acid in accordance with local, regional, national, and/or international regulations

Section 14: Transport Information

• Not applicable for vinegar containing less than 25% acetic acid, provided packaging complies with ADR Special Provision 647.
Section 15: Regulatory Information

• Not applicable

Section 16: Other Information

Last Revision Date 1/15/2015
Preparation Date 1/15/2015

Disclaimer/Statement of Liability

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.