SECTION 1 - IDENTIFICATION

Product Identifier: WHEY-CIDE
Product Use: Antimicrobial solution.
Chemical Family: Oxidizer

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:
- Skin Corrosion - Category 1
- Serious Eye Damage - Category 1
- Oxidizing Liquids - Category 2
- Corrosive to Metals - Category 1
- Organic Peroxides - Type G
- Acute Toxicity - Oral Category 4
- Hazardous to the Aquatic Environment, Acute Toxicity Category 2

Signal Word: DANGER

Hazard Statements:
- Causes severe skin burns and eye damage
- May intensify fire; oxidizer
- May be corrosive to metals
- Harmful if swallowed
- Toxic to aquatic life

Precautionary Statements:

Prevention
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash hands thoroughly after handling
- Keep away from heat/sparks/open flames/hot surfaces - No smoking.
- Keep/Store away from clothing/combustible materials.
- Do not eat, drink or smoke when using this product.
- Keep only in original container.
- Take any precaution to avoid mixing with combustibles.

Response
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- For specific treatment see Section 4 First Aid.
- Wash contaminated clothing before reuse.
- In case of fire: Use water for extinction.
- Absorb spillage to prevent material damage.

Storage
- Store locked up.
- Store in a corrosive resistant container with a resistant inner liner.

Disposal
Dispose of contents/container in accordance with local regulations.

**SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Synonym</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDROGEN PEROXIDE</td>
<td>H2O2</td>
<td>7722-84-1</td>
<td>22.6-23.1%</td>
</tr>
<tr>
<td>ACETIC ACID</td>
<td>NONE</td>
<td>64-19-7</td>
<td>5-10%</td>
</tr>
<tr>
<td>PEROXYACETIC ACID</td>
<td>PAA</td>
<td>79-21-0</td>
<td>5.0-5.4%</td>
</tr>
</tbody>
</table>

**SECTION 4 - FIRST-AID MEASURES**

**Inhalation:** Remove source of exposure or move person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. If direct contact during rescue breathing poses a threat to the first aid provider, “Avoid mouth-to-mouth contact by using a barrier device.”

**Skin Contact:** Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water/shower with a flushing duration of 30 minutes. Immediately call POISON CENTER/doctor. Wash contaminated clothing before re-use.

**Eye Contact:** Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rinse contaminated water into the unaffected eye or into the face. Immediately call a POISON CENTER/doctor.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

**Most Important Symptoms and Effects, both Acute and Delayed:** Causes severe skin burns and eye damage, burning of the mouth, throat, and esophagus.

**Indication of any Immediate Medical Attention and Special Treatment Needed:** Treat symptomatically.

**SECTION 5 - FIRE-FIGHTING MEASURES**

**Extinguishing Media:** Use water spray, powder, foam, carbon dioxide.

**Special hazards arising from the substance or mixture:** Non combustible. May give off irritating or toxic fumes (or gases) in a fire.

**Flammability classification (OSHA 29 CFR 1910.106) (Hazcom 2012):** Non flammable

**Hazardous Combustion Products:** May cause fire and explosions when in contact with incompatible materials.

**Special protective equipment and precautions for firefighters:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:** Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**Methods and materials for containment and cleaning up:** SMALL SPILLS (less than 1 gallon): Neutralize with soda ash or cover with dry earth, sand or other non combustible material, place into loosely covered plastic containers for later disposal. If neutralized, material can be diluted into drain. LARGE SPILL: Restrict access to area until completion of clean up. Prevent liquid from entering sewers or waterways. Stop or reduce leak if safe to do so. Dike with inert material (sand, earth, etc.). Collect into plastic containers for disposal. Ensure adequate decontamination of tools and equipment following clean up.

**Special spill response procedures:** Collect spills in plastic containers only. Prevent from entering sewers, waterways, or low areas.

**SECTION 7 - HANDLING AND STORAGE**

**Precautions for Safe Handling:** Wear at least chemical resistant gloves and eye protection, face shield, and chemical resistant garments when handling, moving or using this product. Do not contaminate water, food, or feed by storage or disposal.

**Conditions for Safe Storage:** Store in a cool, dry, well ventilated place away from direct sunlight. Keep container closed when not in use.

**Incompatible Materials:** Avoid strong reducing agents, soft metals, heat and bases (unless product has been diluted to less than 1000ppm, then bases may be used to gradually adjust to a pH of less than 9).

**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**
SAFETY DATA SHEET

EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NO.</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETIC ACID</td>
<td>64-19-7</td>
<td>10 ppm</td>
<td>10 ppm</td>
</tr>
<tr>
<td>HYDROGEN PEROXIDE</td>
<td>7722-84-1</td>
<td>1 ppm</td>
<td>1 ppm</td>
</tr>
<tr>
<td>PERACETIC ACID</td>
<td>79-21-1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ventilation and engineering measures: Forced air, local exhaust, or open air is adequate.

Respiratory Protection: In case of confined spaces or high levels encountered in the air, wear self contained breathing apparatus.

Skin Protection: Wear chemical resistant gloves and chemical resistant garments when handling, wash garments before re-use.

Eye/Face Protection: Wear chemical goggles; also wear a face shield if splashing hazard exists.

Other Protective Equipment: Eye wash facility and emergency shower should be in close proximity.

General Hygiene Conditions: Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industry hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colorless liquid
Odor: Vinegar odor
pH: <1 (1:10)
Melting/Freezing point: No information available
Initial boiling point and boiling range: No information available
Flash Point: >200° F / >93 º C
Flammability (solid, gas): Non flammable
Specific gravity: 1.12 g/mL
Solubility in water: Complete
Auto ignition temperature: >518° F / >270º C
Decomposition temperature: No information available
Viscosity: 5-15 cSt at 20°C / 68ºF
Volatiles (% by weight): >99
Volatile organic compounds (VOC's): No information available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Reactive with bases, metals, reducing agents and combustible materials
Chemical Stability: Stable for up to 1 year when stored under normal conditions.
Possibility of Hazardous Reactions: May react with incompatible materials
Conditions to Avoid: Incompatible materials and high temperatures
Incompatible Materials: Reactive with bases, metals, reducing agents and combustible materials
Hazardous Decomposition Products: Oxygen which supports combustion.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
Routes of entry - inhalation: YES
Routes of entry - skin & eye: YES
Routes of entry - ingestion: YES
Routes of entry - skin absorption: NO

Potential Health Effects:

Inhalation: Breathing in mists or aerosols may produce respiratory irritation.
Ingestion: Swallowing can result in nausea, vomiting, diarrhea, abdominal pain and chemical burns to the gastrointestinal tract.
Skin: Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Eye: A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
Potential Chronic Health Effects:

Mutagenicity: No known mutagenic effects

Carcinogenicity: No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

Reproductive effects: No known reproductive effects

Sensitization to material: Not expected to cause sensitization

Specific target organ effects: No information available

Medical conditions aggravated by overexposure: No information available

Toxicological data: The calculated ATE values for this mixture are:

ATE oral = 961 mg/kg
ATE dermal = >5000 mg/kg
ATE inhalation = No information available

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: May harmful to aquatic life.

Persistence and degradability: Not expected to persist. Expected to readily biodegrade.

Bioaccumulation potential: Not expected to bio accumulate.

Mobility in soil: No information available

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for disposal: Do not contaminate water, food, or feed by storage and/or disposal. When handling refer to protective measures listed in sections 7 and 8. Empty residue from containers, rinse container well.

Method of disposal: Dispose of in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA: If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA, because of: Corrosivity D002

SECTION 14 - TRANSPORTATION INFORMATION

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Please note the GHS and DOT Standards are NOT identical and therefore can have varying classifications

US 49 CFR/DOT/IATA/IMDG Information:

UN No.: 3098
UN Proper Shipping Name: Oxidizing liquid, corrosive, n.o.s. (contains hydrogen peroxide and peroxyacetic acid mixture, stabilized)
Transportation hazard class(es): 5.1 (8)
Packing Group: II

Environmental hazards: No hazards identified.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

TSCA information: All components are listed on the TSCA inventory.

US CERCLA Reportable quantity (Hazardous substance RQ): Acetic acid has a RQ of approximately 59000 lbs. of as is chemical.

US EPCRA Reportable quantity ( Extremely hazardous substance RQ): Peracetic acid has a RQ of approximately 9300 lbs. of as is chemical.

Clean Air Act Section 112(r) Threshold Quantity (TQ): Peracetic acid has a TQ of approximately 185000 lbs. of as is chemical.

SARA Title III: Reactivity Hazard, Acute Health Hazard

International Information: WHMIS: Class C: Oxidizing material. Class E: Corrosive material

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

SECTION 16 - OTHER INFORMATION
**SAFETY DATA SHEET**

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Stability</th>
<th>Special Hazards</th>
<th>OX, COR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health Hazards</td>
<td>Flammability</td>
<td>Physical Hazard</td>
<td>Personal Protection</td>
<td></td>
</tr>
</tbody>
</table>

**NFPA/HMIS Ratings Legend**

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Special hazards: OX = Oxidizer; COR = Corrosive

Personal Protection = C (safety glasses, gloves, protective apron)

**Legend:**

- **SARA:** The Superfund Amendments and Reauthorization Act
- **RCRA:** Resource Conservation and Recovery Act
- **TSCA:** Toxic Substances Control Act
- **CFR:** Code of Federal Regulations
- **DOT:** Department of Transportation
- **ATE:** Acute Toxicity Estimate

Preparation Date: 4/1/2017