1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name/Use: UNDERTOW Foaming Acid Disinfectant Cleaner

MANUFACTURER
The Butcher Company
67 Forest Street
Marlborough, MA 01752-3012

Butcher Telephone Number: 800-225-9475
Emergency Telephone (24 hours): 800-228-5635

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT(S)</th>
<th>CAS NO.</th>
<th>% BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>7 – 10</td>
</tr>
<tr>
<td>Oxalic acid</td>
<td>144-62-7</td>
<td>1 – 3</td>
</tr>
<tr>
<td>Quaternary ammonium chlorides</td>
<td>68424-95-3</td>
<td>1 – 3</td>
</tr>
<tr>
<td>Nonyl phenol ethoxylate</td>
<td>9016-45-9</td>
<td>1 – 3</td>
</tr>
</tbody>
</table>

See Section 8 for Exposure Limits NA - Not Applicable

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

POTENTIAL HEALTH EFFECTS (See Section 11 for Toxicological Information)
PRIMARY ROUTE(s) OF EXPOSURE: X Eye  X Skin Contact  ___ Skin Absorption
X Inhalation  X Ingestion

EFFECTS OF ACUTE EXPOSURE

EYES:
Causes eye burns. Symptoms may include pain, tearing, redness, and eye injury.

SKIN:
Causes severe skin irritation. Symptoms may include pain, redness, rash, and swelling.

INHALATION:
High concentrations of vapor or mist may cause nose, throat and respiratory tract irritation. Symptoms may include coughing and a burning sensation in the nose and throat.

INGESTION:
Harmful if swallowed. May cause mouth, throat and stomach burns. Symptoms may include nausea, vomiting, diarrhea, and severe stomach pain.
EFFECTS OF CHRONIC EXPOSURE:
Prolonged contact may cause skin burns. Symptoms may include pain, redness, swelling, scarring, and skin damage.

MEDICAL CONDITIONS AGGRAVATED:
May aggravate pre-existing eye, skin and respiratory conditions.

4. FIRST AID MEASURES

EYES:
Immediately flush eyes with plenty of water while holding eyelids apart. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not put any medication in the victim’s eyes unless instructed by a physician. Get immediate medical attention.

SKIN:
Immediately flush with plenty of water, then wash with soap and water. Remove saturated clothing. Get medical attention if irritation develops or persists. Thoroughly wash (or discard) clothing and shoes before reuse.

INHALATION:
Remove to fresh air. If not breathing, give respiration; if breathing is difficult, give oxygen (by trained personnel only). Get medical attention if symptoms persist.

INGESTION:
Do not induce vomiting. Drink large quantities of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN:
Possible mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: >200°F 93°C TCC

FLAMMABLE LIMITS:
Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

EXTINGUISHING MEDIA:
Use extinguishing media appropriate for surrounding fire.

HAZARDOUS COMBUSTION PRODUCTS:
Normal products of combustion (carbon monoxide and carbon dioxide), nitrogen oxides and phosphorous oxides.

FIRE AND EXPLOSION HAZARDS:
Phosphoric acid can react with common metals to form potentially explosive hydrogen gas.
FIRE FIGHTING INSTRUCTIONS:
This product is not flammable. As in any fire, MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear should be worn.

6. ACCIDENTAL RELEASE MEASURES

See Section 8, Exposure Controls/Personal Protection and Section 3, Hazard Identification. Floors may be slippery. Use care to avoid falling. Ventilate spill area. Contain and isolate spill. Keep non-essential personnel from entering spill area. Use mop and absorbent to collect material for proper disposal. Use non-metallic implements for cleaning and collection. Rinse area with water.

7. HANDLING AND STORAGE

HANDLING:
Follow label use directions. Do not mix with other chemicals unless instructed by label directions. Avoid contact with eyes, skin and clothing. Avoid breathing mist. Wash thoroughly after handling. Immediately remove contaminated clothing. Wash clothing and equipment before reuse. Destroy contaminated shoes.

STORAGE:
Keep container closed when not in use. Store away from incompatible materials. (See Section 10, Stability and Reactivity).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)

EYE:
Where eye contact is possible, wear chemical splash goggles (ANSI Z87.1-approved).

SKIN:
Where skin contact is possible, chemical-resistant clothing (e.g., gloves) should be worn.

RESPIRATORY:
No respiratory protection is required if general room ventilation is adequate and airborne concentrations are kept below exposure limits. When exposure limits are exceeded, use appropriate respiratory protection (NIOSH/MSHA) to prevent overexposure. For phosphoric acid, use an approved respirator equipped with an acid gas cartridge.

ENGINEERING CONTROLS:
General room ventilation is expected to be adequate. If user operations generate vapor or mist, ventilation should be used to keep airborne concentrations below exposure limits.
EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>INGREDIENT(S)</th>
<th>OSHA PEL/STEL</th>
<th>ACGIH TLV/STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>1 mg/m3 /3 mg/m3</td>
<td>1 mg/m3 /3 mg/m3</td>
</tr>
<tr>
<td>Oxalic acid</td>
<td>1 mg/m3 /2 mg/m3</td>
<td>1 mg/m3 /2 mg/m3</td>
</tr>
<tr>
<td>Quaternary ammonium chlorides</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Nonyl phenol ethoxylate</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

NE - Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

- PHYSICAL STATE: Liquid
- ODOR: Lime
- APPEARANCE: Clear, Pink
- pH: <1.0
- PERCENT VOLATILE BY WEIGHT: 75
- VAPOR PRESSURE: Not Determined
- VAPOR DENSITY: Not Determined
- BOILING POINT: 190 to 212°F 88 to 100°C
- FREEZING/MELTING POINT: Not Determined
- SOLUBILITY IN WATER: Complete
- EVAPORATION RATE: Not Determined
- SPECIFIC GRAVITY: 1.05
- VISCOSITY: Water Thin
- OCTANOL/WATER PARTITION COEFFICIENT: Not Determined
- ODOR THRESHOLD: Not Determined

10. STABILITY AND REACTIVITY

- STABILITY (CONDITIONS TO AVOID):
  Stable.

- POLYMERIZATION:
  Will not occur.

- HAZARDOUS DECOMPOSITION:
  None.

- INCOMPATIBLE MATERIALS:
  Oxidizers (e.g., bleach), strong bases (e.g., sodium hydroxide) and reactive metals (e.g., aluminum).

11. TOXICOLOGICAL INFORMATION

- ACUTE DATA:
  No data is available for this product. The following data are available for product ingredients:
UNDEFTOW Foaming Acid Disinfectant Cleaner

<table>
<thead>
<tr>
<th>PRODUCT/INGREDIENT</th>
<th>ORAL LD_{50} (rat)</th>
<th>DERMAL LD_{50} (rabbit)</th>
<th>INHALATION LC_{50} (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>3500 mg/kg</td>
<td>&gt;1260 mg/kg</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxalic acid</td>
<td>375–475 mg/kg</td>
<td>20000 mg/kg</td>
<td>Not Available</td>
</tr>
<tr>
<td>Quaternary ammonium chlorides</td>
<td>366 mg/kg</td>
<td>204–645 mg/kg</td>
<td>Not Available</td>
</tr>
<tr>
<td>Nonyl phenol ethoxylate</td>
<td>2000–5000 mg/kg</td>
<td>1000–3000 mg/kg</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

SENSITIZATION DATA:
No data available.

CHRONIC DATA:
Prolonged overexposure to oxalic acid by ingestion and inhalation has caused kidney effects (calcium oxylate crystal deposits) in humans and laboratory animals.

REPRODUCTIVE/TERATOGENIC DATA:
No data available.

CARCINOGENIC/MUTAGENIC DATA:
Not listed as carcinogenic by NTP IARC, or ACGIH or regulated as a carcinogen by OSHA.

SYNERGISTIC MATERIALS:
No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Disposal of this material should be in accordance with local, state or provincial and federal regulations. The unused product, as manufactured, is a RCRA hazardous waste (Corrosive-D002) in accordance with 40 CFR 261. The product has not been evaluated by the Toxicity Characteristic Leachate Procedure (TCLP). According to RCRA, it is the responsibility of the waste generator to ensure proper disposal.

14. TRANSPORT INFORMATION

DOT/TDG HAZARDOUS MATERIAL DESCRIPTION: Corrosive Liquid, N.O.S.
DOT/TDG TECHNICAL NAME: Phosphoric acid
DOT/TDG HAZARD CLASS: 8
UN ID No./PI.N. No.: 1760
DOT/TDG PACKING GROUP: III
NAERG: 154

SPECIAL SHIPPING NOTES:
The above shipping information applies to 55 gallon and 1 gallon package sizes only. For quart package sizes, the following applies: Consumer Commodity ORM-D.
15. REGULATORY INFORMATION

Not meant to be all-inclusive—selected regulations represented.

UNITED STATES
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)
311/312 HAZARD CATEGORIES: Under 40 CFR 370.2, this product meets the following hazard category: Immediate.
313 REPORTABLE INGREDIENTS: Phosphoric acid is 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.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)
CERCLA REGULATORY: Not reportable under CERCLA.

EPA
EPA REG. NO.: 8155-20-7176

TSCA (TOXIC SUBSTANCE CONTROL ACT)
TSCA STATUS: This product complies with all TSCA inventory requirements.

MASSACHUSETTS, NEW JERSEY, PENNSYLVANIA RIGHT-TO-KNOW:

<table>
<thead>
<tr>
<th>INGREDIENT(S)</th>
<th>CAS NO.</th>
<th>STATE LISTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>Oxalic acid</td>
<td>144-62-7</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Quaternary ammonium chlorides</td>
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</table>

NA - Not Applicable

16. OTHER INFORMATION

| HEALTH | - | 3 |
| FLAMMABILITY | 0 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | - |

NFPA RATING

HEALTH 3 0
REACTIVITY

SPECIAL
MSDS STATUS
Revision #: 2

This MSDS replaces the February 04, 2000 MSDS. Any changes in information are as follows:
In Section 9
Odor (text)

APPROVED BY: EH&S/Regulatory Affairs
APPROVAL DATE: 02/25/2000

The information on this data sheet represents our current data and best opinion as to the proper use in handling of the product under normal foreseeable conditions. Any use of this product which is not in conformance with this data sheet or product label, or which involves using the product in combination with any other product or any other process is the responsibility of the user.