Stellar Cleaning and Sanitation Solutions for the Brewing Industry
Since 1937, Zep has been a true cleaning and sanitation partner to the beverage industry. From removing beer stone to line lubrication, Zep has your brewery cleaning and sanitation covered. Zep’s high performance products work so well there is no need for boosters, saving you both time and money. Our local Food & Beverage Safety Consultants are readily available to serve you with in-plant service visits, education on sanitation procedures, and maintenance services.

You pay attention to every detail. Don’t neglect this crucial one.

Stellar Cleaning in the Brewery Process

Preventing spoilage is made easy using three Zep products throughout the brewing process:

- CIP Cleaner
- Acid Cleaner
- Sanitizer

Zep offers many types of Cleaners and Sanitizers based on your equipment needs and preference.

What they’re saying about Zep...

“Over the past several years Zep has provided exceptional service to Great Lakes Brewing Co. The quality of the product has made our cleaning processes more efficient and, in the end, it has helped us put out a high quality product. Service has been excellent from ordering, to inventory control, to help with unforeseen circumstances in the plant. I would recommend and have recommended Zep products to any brewery or production facility. Keep up the good work!!”

Mark Hunger  
Brewmaster — Great Lakes Brewing Co.  
Cleveland, OH

“We here at Sudwerk Brewing Company utilize Zep products in all facets of our CIP regimen (caustic, acids, sanitizers) and are very satisfied with the results time and time again. Their service is top notch as well. Jason, our sales representative, is great and always willing to help us when we have questions or need some advice when it comes to new processes or chemicals that we’re looking to employ. Cheers Zep!”

Mike Hutson  
Head Brewer — Sudwerk Brewing Co.  
Davis, CA
A Mash Tun/Mash Kettle/Lauter Tun
Spoilage Microbes: Acetobactor & Gluconobacter
Spoilage Characteristics: Acetified, Ropiness

B Wort Kettle
Spoilage Microbes: Acetomonads, Flavobacter, Pectinatus, Zymomonas
Spoilage Characteristics: Acidic, Turbid/Ropiness, Greasy/Pellicle Rotten Apple Flavor

C Hot Wort Tank
Spoilage Microbes: Acetomonads, Bacillus, Leuconostoc Streptococci, Pediococcus
Spoilage Characteristics: Buttery off flavor, Ropiness, Acidic off flavor

D Plate Cooler/Heat Exchanger
Spoilage Microbes: Lactobacilli
Spoilage Characteristics: Haze, Ropiness, Thinning

E Fermenting Tank
Spoilage Microbes: Bacillus, Leuconostoc, Pediococci, Streptococci, Wild Yeast
Spoilage Characteristics: Sarcina sickness - off Flavor/Ropiness, Vinegary/Fruity and Yeast Haze

F Resting Tank
Spoilage Microbes: Acetomonads
Spoilage Characteristics: Acidic off flavor

G Filtration Unit
Spoilage Microbes: Acetomonads, Enterobacter, Megasphaera, Pectinatus
Spoilage Characteristics: Rotten egg odor, Turbidity and Buttery acids

“I have tried several different suppliers of chemicals, and it became apparent that not all are created equal. I kept coming back to Zep products because they work better than any other supplier we have used, and the price was comparable.”

Keely Thomlinson
Head Brewer
Three Wise Men Brewing Company
Indianapolis, IN
### FS CIP CLEANER
Prod.# 1669

**Caustic**

- Heavy-duty - powerful cleaning action quickly and effectively removes many tough soils, no boosters needed
- Economical - extremely concentrated for high levels of dilution - allows for low use cost
- Labor-saving - reduces the need to disassemble some types of equipment. In most cases, eliminates the need for manual scrubbing
- Low-foaming - reduced foaming levels enhance CIP cleaning and rinsability. Eliminates the need for expensive defoamer additives

<table>
<thead>
<tr>
<th>Volume</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 gal pail</td>
<td>166935</td>
</tr>
<tr>
<td>55 gal drum</td>
<td>166985</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>166989</td>
</tr>
</tbody>
</table>

### FS Z-CHLOR
Prod.# 2443

**Chlorinated Caustic**

- Heavy-duty cleaner - removes heavy accumulations of grease, protein and stains
- Chlorinated - to aid in the removal of protein and stains, as well as deodorizing
- Rinses freely and leaves no scum or film on surfaces
- Non-foaming - generates no foam of its own, so it is ideal for CIP and circulation cleaning

<table>
<thead>
<tr>
<th>Volume</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 gal pail</td>
<td>244335</td>
</tr>
<tr>
<td>55 gal drum</td>
<td>244385</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>244389</td>
</tr>
</tbody>
</table>

### XT-2575
Prod.# 5277

**Caustic**

- Low Foam - contains no foaming agents. Ideal for CIP applications
- Economical - highly concentrated for low usage cost
- Versatile - may also be used as an acid vat neutralizer
- Highly Alkaline - aggressive alkalinity cuts through tough grease and soils

<table>
<thead>
<tr>
<th>Volume</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 gal drum</td>
<td>522785</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>522789</td>
</tr>
</tbody>
</table>

### FS BAKERY PAN CLEANER
Prod.# 2370

**Alkaline**

- Excellent for use on Aluminum, Zinc, Copper and Galvanized Metals - alkaline builders are buffered so product will clean aluminum without etching or corroding
- Low Foam - formulated with low foaming detergents so foam is not a problem when used through CIP and circulation equipment
- Convenient - since FS Bakery Pan Cleaner is a liquid, it does not require extreme agitation to put it into solution as do most powders
- Biodegradable - all detergents used in the manufacture of this product are biodegradable

<table>
<thead>
<tr>
<th>Volume</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 gal pail</td>
<td>237035</td>
</tr>
<tr>
<td>55 gal drum</td>
<td>237085</td>
</tr>
</tbody>
</table>

### RECIRCULATING PAN CLEANER
Prod.# 5606

**Alkaline, Parts Soaking**

- Low foaming for soft metals and parts soaking
- Works quickly - rapidly removes heavy grease and grime
- Safe on Soft Metals - buffered alkalies will not attack, etch or corrode aluminum or other soft metals
- Biodegradable - contains only biodegradable detergents and emulsifiers, non-caustic formula

<table>
<thead>
<tr>
<th>Volume</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 gal pail</td>
<td>166935</td>
</tr>
<tr>
<td>55 gal drum</td>
<td>166985</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>166989</td>
</tr>
</tbody>
</table>
## Acid CIP Cleaners

### XT-2002  
Prod.# 5090
**Nitric/Phosphoric Acid Blend**
- Low foam formulation - improves CIP cleaning efficiency and ease of rinsing
- Economical - highly concentrated to reduce end-use cost
- Performs well at dilution ratios between 1:100 to 1:512.
- Blend of acids - provides excellent product stability as compared to straight nitric acid formulations.
- Rapidly penetrates – dissolves mineral deposits, alkaline residues, and protein scale.
- Brightens aluminum - excellent product for renewing original brightness to stainless steel.

<table>
<thead>
<tr>
<th></th>
<th>5 gal pail</th>
<th>45 gal drum</th>
<th>275 gal tote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prod. #</td>
<td>509035</td>
<td>509075</td>
<td>509089</td>
</tr>
</tbody>
</table>

### FS Formula 3685  
Prod.# 2494
**Phosphoric Acid-based**
- Low foaming, removes protein scale on aluminum, galvanized, and stainless steel.
- Concentrated - can be economically diluted for use at 2 to 5 ounces per gallon.
- Non-fuming acid action, yet no irritating fumes.
- Fast-acting acid/detergent combination cleans quickly and effectively.
- Mild acid - contains no harsh muriatic or nitric acid.

<table>
<thead>
<tr>
<th></th>
<th>5 gal pail</th>
<th>55 gal drum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prod. #</td>
<td>249424</td>
<td>249485</td>
</tr>
</tbody>
</table>

## CIP Sanitizers

### Peroxy-Serve 5  
Prod.# 2732
**Peracetic Acid**
- Concentrated - may be diluted as low as 1 oz per 6 gallons of water for real economy.
- Safer in Use - less corrosive to equipment and safer for users than chlorine.
- Environmentally Acceptable - safer for the environment, breaks down to water, acetic acid (vinegar) and oxygen.

<table>
<thead>
<tr>
<th></th>
<th>5 gal pail</th>
<th>53.5 gal drum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prod. #</td>
<td>273235</td>
<td>273585</td>
</tr>
</tbody>
</table>

### Pro-Oxine  
Prod.# 2950
**Chlorine Dioxide**
- Ultra high antimicrobial activity against mold, yeast and bacteria.
- A pronounced effectiveness against biofilms.
- High compatibility with metals.
- Non-foaming.
- Remarkable deodorization capability.

<table>
<thead>
<tr>
<th></th>
<th>5 gal pail</th>
<th>55 gal drum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prod. #</td>
<td>295035</td>
<td>295085</td>
</tr>
</tbody>
</table>
### ALKALINE / CAUSTIC FOAMING CLEANERS

#### FS PRO CHLOR
**Prod.# 2412**

**Chlorinated Alkaline**

- Powerful cleaning action - rapidly removes dirt, grease, and grime from a wide variety of surfaces
- Versatile - may be used for either manual cleaning, pressure washing, or through foam-generating equipment for foam cleaning. Excellent for floor cleaning
- Rinses freely to prevent spotting
- Chlorinated - provides extra cleaning, deodorizing, protein removal, and destaining
- Biodegradable - all detergents used in the manufacture of this product are biodegradable

<table>
<thead>
<tr>
<th>Container</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 gal pail</td>
<td>241235</td>
</tr>
<tr>
<td>55 gal drum</td>
<td>241285</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>241289</td>
</tr>
</tbody>
</table>

#### FS FORMULA 4089
**Prod.# 2465**

**Chlorinated Caustic**

- Heavy Duty - at a dilution rate of 4 oz per gallon of water, effectively removes dirt, grease and grime from a variety of surfaces
- Chlorinated - aids in the removal of protein and stains, as well as deodorizes
- High Foaming - thick stable foam clings to vertical surfaces allowing a longer contact time

<table>
<thead>
<tr>
<th>Container</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1 gal/cs</td>
<td>246524</td>
</tr>
<tr>
<td>5 gal pail</td>
<td>246535</td>
</tr>
<tr>
<td>55 gal drum</td>
<td>246585</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>246589</td>
</tr>
</tbody>
</table>

#### FS PROCESS CLEANER
**Prod.# 2940**

**Alkaline**

- Safe for soft metals, non-butyl, water-based cleaner and degreaser
- Powerful Cleaning Action - rapidly removes dirt, grease and grime from a wide variety of surfaces
- Versatile - may be used for either manual cleaning, pressure washing, or through foam-generating equipment for foam cleaning. Excellent for floor cleaning
- Rinses freely to prevent spotting
- Chlorine Compatible - chlorine may be added at time of use for enhanced cleaning
- Biodegradable - all detergents used in the manufacture of this product are biodegradable

<table>
<thead>
<tr>
<th>Container</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1 gal/cs</td>
<td>294024</td>
</tr>
<tr>
<td>5 gal pail</td>
<td>294035</td>
</tr>
<tr>
<td>55 gal drum</td>
<td>294085</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>294089</td>
</tr>
</tbody>
</table>

#### FS STRIKE THREE
**Prod.# 1650**

**Alkaline**

- Environmentally desirable - powerful cleaning action without phosphate or butyl solvent
- Powerful cleaning action - rapidly removes dirt, grease, and grime from a wide variety of surfaces
- Versatile - may be used for either manual cleaning, pressure washing, or through foam-generating equipment for foam cleaning. Excellent for floor cleaning.
- Inhibited - will not harm metal surfaces, including aluminum, when used as directed on the label
- Biodegradable - all detergents and wetting agents are completely biodegradable

<table>
<thead>
<tr>
<th>Container</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 gal drum</td>
<td>165085</td>
</tr>
</tbody>
</table>
**FS CONC. FOAMING ACID**
Prod.# 2368

- Phosphoric/Sulfuric blend
- Built-in foamer - eliminates the need for additional boosters usually required to produce high, stable foam
- Effective - quickly solubilizes and removes hard water and protein scale from processing equipment
- Brightens - excellent for renewing original brightness on stainless steel, aluminum, and galvanized surfaces
- Biodegradable - all detergents and wetting agents are completely biodegradable

<table>
<thead>
<tr>
<th>4-1 gal/cs</th>
<th>5 gal pail</th>
<th>55 gal drum</th>
<th>275 gal tote</th>
</tr>
</thead>
<tbody>
<tr>
<td>236824</td>
<td>236835</td>
<td>236885</td>
<td>236889</td>
</tr>
</tbody>
</table>

**FS FORMULA 4489**
Prod.# 2400

- Phosphoric Acid-based
- Built-in foamer - eliminates the need for additional boosters usually required to produce high, stable foam
- Effective - quickly solubilizes and removes hard water and protein scale from processing equipment
- Brightens - excellent for renewing original brightness on stainless steel, aluminum, and galvanized surfaces
- Biodegradable - all detergents and wetting agents are completely biodegradable

<table>
<thead>
<tr>
<th>4-1 gal/cs</th>
<th>55 gal drum</th>
</tr>
</thead>
<tbody>
<tr>
<td>240024</td>
<td>240085</td>
</tr>
</tbody>
</table>

**FS SIZZLE BRITE**
Prod.# 5997

- Nitric/Phosphoric/Sulfuric blend
- High-foam formula - clings to vertical surfaces for thorough cleaning
- Economical - highly concentrated to reduce end-use cost
- Concentrated - performs well at a dilution of 4-8 oz per gallon
- Blend of acids - provides excellent stability compared to straight nitric acid formulations, even at high temperatures
- Penetrates rapidly - rapidly dissolves mineral deposits, alkaline residues, protein scale, and hard water scale
- Brightens stainless steel - excellent for bringing back the shine on stainless steel surfaces.

**External Sanitizing**

**ACID FOAMING CLEANERS / METAL BRIGHTENERS**

**FS AMINE Z**
Prod.# 1700

- Quat Sanitizer
- No rinse multi-purpose quaternary ammonium sanitizer
- Sanitizes surfaces at 1 oz per 4 gallons of water (200 ppm active quat)
- Effective - eliminates 99.99% of many types of bacteria in 60 seconds

<table>
<thead>
<tr>
<th>5 gal pail</th>
<th>55 gal drum</th>
<th>275 gal tote</th>
</tr>
</thead>
<tbody>
<tr>
<td>170035</td>
<td>170085</td>
<td>170089</td>
</tr>
</tbody>
</table>

**ZEP-I-DINE**
Prod.# 1830

- Iodine Sanitizer
- Concentrated liquid cleaner, disinfectant and no-rinse sanitizer containing solubilized iodine, a mild mineral acid, surfactants and water
- Non-staining - in-use dilution, product is non-irritating, non-toxic and non-staining to skin and no taste or odor is left on sanitized surfaces
- Broad-Spectrum Effectiveness - EPA registered bactericide, fungicide and virucide

<table>
<thead>
<tr>
<th>4-1 gal/cs</th>
<th>55 gal drum</th>
</tr>
</thead>
<tbody>
<tr>
<td>183024</td>
<td>183085</td>
</tr>
</tbody>
</table>
## External Maintenance

### EQUIPMENT

**X-571 LUBRICANT**

*Prod.# 4875*

- **Water-based (H2) Chain Lubricant**
  - Lubricates - protects bearing surfaces on conveyors against excessive wear. Assures smooth, trouble-free operation
  - Conserves energy - reduces chain drag, reducing power load on conveyor chain drive motors

<table>
<thead>
<tr>
<th>Size</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 gal drum</td>
<td>487585</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>487589</td>
</tr>
</tbody>
</table>

**FIVE STAR**

*Prod.# 1396*

- **Brass and Metal Polish**
  - Removes tarnish and lime deposits
  - Easy to use - cleans and polishes virtually all metals including: brass, chrome, stainless steel, copper, silver, gold, aluminum, magnesium, aluminum alloys, nickel, zinc, tin, bronze, and pewter in one easy step
  - Protects against rust and tarnish
  - Non-flammable formula presents no fire hazards in use
  - Economical to use - paste form eliminates waste through over-use or spills. A little goes a long way

<table>
<thead>
<tr>
<th>Size</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 - 6.3 oz/cs</td>
<td>139606</td>
</tr>
<tr>
<td>4.2 lb/cs</td>
<td>139604</td>
</tr>
</tbody>
</table>

**PET LUBE (XT-4399)**

*Prod.# F337*

- **Concentrated, Liquid, High Detergency Lubricant**
  - Lubricates - protects bearing surfaces on conveyors against excessive wear. Assures smooth, trouble-free operation
  - Conserves energy - reduces chain drag, reducing power load on conveyor chain drive motors
  - High detergent action - removes soil build-up and keeps conveyor clean and odor-free

<table>
<thead>
<tr>
<th>Size</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 gal drum</td>
<td>F33785</td>
</tr>
<tr>
<td>275 gal tote</td>
<td>F33789</td>
</tr>
</tbody>
</table>

---

**What they’re saying about Zep...**

“I would highly recommend Zep products as the source for brewing chemicals to any of my fellow brewers. I use Zep chemicals in all CIP aspects of my brewery. And to tell you the truth I could not be happier with the results. My brewhouse looks brand new after cleaning with an Apex Caustic CIP cleaner and finishing with the Zep XT-2002. Great results!”

Stephen O’Neill
Brewmaster
BombShell Beer Company
Holly Springs, NC

© 2015 Zep Inc. All Rights Reserved