## FIVE STAR HOMEBREW CLEANING PRODUCTS CHEMICAL USAGE, HANDLING & SAFETY CHART

"Helping solve problems in your brewery!"

## Made in USA

**TIPS!** 

•Mix all powders in a bucket prior to adding them to your tank. Never add directly to the tank. •Always add cleaners & sanitizers to water. Never add water directly on top of the chemicals.

**ALKALINE - ENVIRONMENTALLY FRIENDLY** SANITIZERS **ACID CLEANERS** ADJUNCTS & STABILIZERS

	ALKALINES	
PRODUCTS	TEMPERATURE	USAGE
<b>PBW</b> NON-CAUSTIC POWDER • USER & ENVIRONMENTAL FRIENDLY • FREE RINSING	• 100-160°F water	<ul> <li>1-2 oz. per gallon of water for single brew cleaning.</li> <li>Run solution for 25-35 minutes.</li> <li>Rinse with potable water immediately after CIP at same temperature as wash.</li> </ul>
LLC LIQUID LINE CLEANER · FAST SOIL PENETRATION · LOW FOAM	• 100-180°F water	<ul> <li>Use at a rate of ½ oz. per gallon of water, circulate for at least 5 min.</li> <li>Rinse water with potable water. Draw off rinse water until clear beverage appears, draw 16 oz. more and discard.</li> <li>Standard "taste test" to determine if beer tastes okay.</li> </ul>
	SANITIZERS	
PRODUCTS	TEMPERATURE	USAGE
<b>STAR SAN</b> HIGH-FOAMING SANITIZER · EXCELLENT FOR PARTS SOAK · NO RINSE REQUIRED	• 50-120°F water	<ul> <li>1 fl. oz. per 5 gallons of water (300 ppm)</li> <li>DO NOT RINSE.</li> <li>PARTS SOAKING - 1 fl. oz. per 5 gallons. Soak for 30 sec., install wet.</li> <li>DO NOT RINSE (when used at or &lt;200ppm)</li> </ul>
SANICLEAN LOW-FOAMING ACID ANIONIC · LEAVES TANK SPOTLESS · NO RINSE REQUIRED	• 50-120°F water	<ul> <li>1 fl. oz. per 3 gallons of water (200 ppm)</li> <li>Spray/ Soak for at least 3 minutes. Empty/ Drain.</li> <li>DO NOT RINSE (when used at or &lt;200 ppm)</li> </ul>
IO STAR LOW-FOAMING IODOPHOR	• 50-120°F water (Caution: over 120°F gassing and corrosion to equipment may occur)	<ul> <li>1 fl. oz. per 5 gallons of water.</li> <li>CIP for 5 min.</li> <li>POTABLE WATER RINSE (Not required at 25 ppm or under)</li> </ul>

## **ACID CLEANERS**

NOTE: Cold temperatures may cause high foaming

PRODUCTS	TEMPERATURE	USAGE	
<b>B.S. REMOVER</b> FOR STUBBORN SCALE OR STONE	• 120-140°F water	<ul> <li>Use at a rate of 1 oz. per gallon of water.</li> <li>Allow a contact time of 10 minutes.</li> <li>Drain and allow the surface to dry.</li> <li>Rinse and sanitize just prior to next use.</li> </ul>	
ADJUNCTS & STABILIZERS			
PRODUCTS	TEMPERATURE	USAGE	
<b>5.2 pH STABILIZER</b> FOOD GRADE PHOSPHATE BUFFERS • provides consistency brew to brew • optimizes enzymatic activity	• Mash water temperature	<ul> <li>2 oz. (by wt.) per 1 bbls. (31 gal) of water. NOTE: Amount of water is based on amount of finished products.</li> <li>Place in mash tun while mashing in.</li> </ul>	
<b>SUPER MOSS HB</b> CARRAGEENAN - IRISH MOSS · MIXES RAPIDLY WITH COLD WATER · REDUCES HAZE IN FINISHED BEER	• Boil temperature	<ul> <li>1 oz. (by wt.) per bbls.</li> <li>Place in jar filled with cold water and shake for 30 sec.</li> <li>After swell, apply to last 15 min. of boil.</li> </ul>	
<b>DEFOAMER 105</b> 10% SILICON DEFOAMER	• 1-200°F water	<ul> <li>Add as needed, not to exceed 200 ppm/batch.</li> <li>Typical starting point is 1 drop in a 5 gal. batch. NOTE: DO NOT EXCEED THE FDA 200 PPM REQUIREMENT</li> </ul>	
<b>PHOS ACID</b> 10% PHOSPHORIC ACID • GREAT FOR ADJUSTING YOUR MASH	• N/A	• Use as needed to adjust water, to bring down pH.	
Five Star Chemical Company       Product MSDS & Tech Sheets available online         Commerce City, Colorado       Emergency Telephone: Infotrac 800.535.5053         Have eye-wash station and       Five Star Chemicals			

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Have eye-wash station and safety shower readily accessible!

