

## **Kleen Scale**

**Descaler / Lime Remover**  
No. 892

### **DESCRIPTION:**

**Kleen Scale** is a water-based solvent containing wetting agents, corrosion inhibitors and degreasing compounds. **Kleen Scale** is designed to penetrate and remove encrusted lime scale, rust, corrosion products and dirt from water-wetted surfaces in process equipment. The solution can also be used to remove lime scale in commercial and industrial applications.

### **FEATURES:**

**Kleen Scale** is non-toxic, non-corrosive and non-flammable and can be safely handled when used as directed in the technical literature.

**Kleen Scale** has a pleasant sassafras odor and does not generate obnoxious odors when dissolving water scale or lime.

**Kleen Scale** contains a pale yellow colored dye which changes to a purple color when the solution is spent.

### **TYPICAL APPLICATIONS:**

**Kleen Scale** is especially designed to safely remove lime deposits or water scale from:

- Power plant boilers and piping systems and from evaporating equipment in refineries, utility companies, paper mills, chemical plants, foundries and other industries.
- Sewage disposal plants, water treating facilities, and other municipal water handling operations.
- Any equipment that is water contacted in any manner

### **PERFORMANCE CHARACTERISTICS:**

**Kleen Scale** has the ability to remove approximately 1.5 pounds of lime, and water scale per gallon of solution. Carbon dioxide (CO<sub>2</sub>) gas is generated by the action of **Kleen Scale** solution on lime or water scale.

**Kleen Scale** is non-corrosive and will not adversely affect the following materials when used as directed: stainless steel, carbon steel, brass, admiralty metal, copper, iron, lead, PVC plastic, polyethylene, rubber, leather, or most metals or materials normally found in water-wetted equipment.

**Kleen Scale** does not separate, phase out or degrade in storage. The solution is free rinsing and does not require neutralization

**Kleen Scale** solution may be shipped on private or commercial carriers.

### **APPLICATION:**

**Kleen Scale** solution is most effectively used by circulating it through the equipment to be cleaned. When possible, circulation should be up flow. The equipment should be vented at all times since carbon dioxide (CO<sub>2</sub>) gas is liberated from the disassociation of the lime scale.

### **CAUTIONS:**

**Kleen Scale** is not recommended for use in aluminum, aluminum alloys, zinc (hot dipped galvanized sheet), and all alloys of magnesium. It is recommended that test samples of these metals be evaluated in the laboratory before using **Kleen Scale** to treat water scale deposits on these metals.

**Kleen Scale** concentrated solution may discolor some chromed and stainless steel surfaces. It is recommended that **Kleen Scale** solution be diluted 1:1 with water before using on chrome surfaces.

### **PHYSICAL PROPERTIES:**

Specific Gravity @ 60° F	1.051
Freezing Point	-22°F
Boiling Point	214°F
Flash	None
Temperature of Reduction	Negligible

**Recommended operating pressure is atmospheric and recommended operating temperature range is:**

Minimum	40°F
Optimum	80°F
Maximum	120°F