Critical-cleaning detergents for laboratory, healthcare and industrial applications

30 Glenn Street White Plains NY 10603 USA Tel.914.948.4040 Fax.914.948.4088

24 Hour Emergency Number (CHEM-TEL) (800) 255-3924 in U.S.

(e-mail) cleaning@alconox.com

(URL) http://www.alconox.com

- distributors
- technical information
- free samples
- new developments

Fax Document #0418



Citranox®

Acid Cleaner and Detergent

- Concentrated to save you money
- Phosphate free, biodegradable and readily disposable
- Penetrating wetting power to save you time
- Free rinsing to give you reliable results and no interfering residues
- Use to pass your cleaning validation tests for lab accreditation and plant inspection approval
- Contains acid ingredients for high performance removal of metal oxides, salts and inorganic residues combined with full detergent capability

Used to clean: Dairy equipment, laboratory ware, sampling apparatus, lab stills, clean rooms, optical parts, electronic components, pharmaceutical apparatus, cosmetics manufacturing equipment, metal forgings, stampings and castings, industrial parts, pipes, tanks, boilers and reactors. Authorized by USDA for use in federally inspected meat and poultry plants. Passes inhibitory residue test for water analysis. FDA certified. Recommended for laser chiller cleaning and maintenance to remove scale.

Used to remove: Scale, metal oxides, metal complexes, trace inorganics, milkstone, soil, grit, buffing compound, grime, grease, fats, oils, particulates, deposits, chemical and solvents.

Surfaces cleaned: Corrosion inhibited formulation recommended for glass, metal, stainless steel, porcelain, ceramic, plastic, rubber and fiberglass. Can be used on soft metals such as copper, bronze, aluminum, zinc and magnesium if rinsed promptly. Corrosion testing may be advisable.

Cleaning method: Soak, brush, sponge, cloth, ultrasonic, flow through clean-in-place. Will foam—not for spray or machine use.

Directions: Make a fresh 1 - 2% solution (3 - 5 Tbsp. per gal., 1 1/4 - 2 1/2 oz. per gal. or 10 - 20 ml per liter) in cold, warm or hot water. If available, use hot water. For difficult soils, raise water temperature and use more detergent. Clean by soak, circulate, wipe or ultrasonic method. Wear protective gloves and eyewear. Not for spray machines, will foam. RINSE THOROUGHLY—preferably with running water. For critical cleaning, do final or all rinsing in distilled, deionized or purified water. For food contact surfaces, rinse with potable water. Used on a wide range of glass, ceramic, plastic and metal surfaces. Corrosion testing may be advisable.

Available in Convenient Sizes:

	Alconox Cat. #
Case 4 x 1 Gallons	1801
15 Gal. Drum	1815
30 Gal. Drum	1830
55 Gal. Drum	1855



Citranox is available from leading laboratory, hospital, clinical and industrial suppliers. To find a distributor for Alconox, Inc. detergents, visit "Find Dealer" at the website. To request FREE samples, visit Sample Request at www.alconox.com, write or call Alconox, Inc. today.



Critical-cleaning detergents for laboratory, healthcare and industrial applications

30 Glenn Street White Plains NY 10603 USA **Tel.914.948.4040**

Fax.914.948.4088

24 Hour Emergency Number

(CHEM-TEL) (800) 255-3924 in U.S.

(e-mail) cleaning@alconox.com

(URL) http://www.alconox.com

- distributors
- technical information
- free samples
- new developments

Fax Document #0418 Citranox Technical Bulletin

PHYSICAL DATA	TYPICAL VALUE
pH of 1% solution	2.5
Specific gravity (g/ml)	1.10
Density (lbs./gal.)	9.15
Flash Point (degrees F)	None
Phosphate Content (as Phosphorus)	0%
Organic Carbon (% calculated w/w)	17%
Fragrance Content	0%
Surface Tension 1% Sol'n (Dyne/cm)	32

Color: Pale Yellow **Form:** Liquid

Solubility in Water: Completely soluble in all proportions

Hard Water Effectiveness: Highly Effective

Biodegradability: Biodegradable **Foam Tendency:** High Foaming

Shelf Life: Two years from the date of manufacture

Chemical Description

Citranox contains a blend of organic acids, anionic and non-ionic surfactants and alkanolamines. Citranox is phosphate free.

Cleaning Validation Methods:

Test a parameter of rinse water before and after rinsing the cleaned surface, or test the clean surface. No significant change in the parameter indicates no detectable residue. Parameters measured include: pH, conductivity, UV, TOC, HPLC, anionic surfactant concentration using inexpensive detergent water testing kits, surface tension, and surface analysis. For details see the Pharmaceutical Cleaning Validation Refereces at www.alconox.com

Health Safety Information:

OSHA Hazardous Ingredients: None RCRA Hazard Class: Non-hazardous EPA Priority Pollutants: None DOT Hazard Class: Non-hazardous Flammability: Non-flammable

Latex Content: None in detergent, packaging materials or adhesives.

Oral Toxicity: LD₅₀> 5000 mg/kg oral rat

No ingredient defined as an oral toxicant by OSHA

Eye Irritation: Serious potential for eye irritation if not rinsed

Inhalation Toxicity: Non-irritating

VOC Content: 0%

Carcinogenicity: NTP = No IARC = No OSHA = No

All ingredients in Citronox are listed in TSCA inventory. USDA NSF cat A3

Precautions:

No special precautions other than good industrial hygiene and safety practices employed with any industrial chemical (see Directions). A Material Safety Data Sheet is available at www.alconox.com or by calling fax-on-demand at 914-948-4040 and following the prompts. Use fax document #0318.

Contact Alconox, Inc. for purchase specifications. Information presented is typical. Typical data is not a specification.

While the information in this report should not be considered to be a product warranty, we urge you to investigate, test and verify the suitability of Alconox detergents for your specific application. We, of course, can not give permission to use, or recommend the use of, our detergents where they infringe patents. No representation or warranty is made as to the safety of products or materials mentioned under the Federal Food Additives Amendment of 1958.

Page 2 of 2 MS 02.25.01.00.07.1 © 2006 Alconox, Inc.