



Ionox[®] HC2

Semi-Aqueous Chemical for Cleaning Rosin, Water-Soluble, and No-Clean Fluxes

Primary Applications

IONOX HC2 is used to remove difficult soldering fluxes, such as white gum and synthetic rosins, water soluble and no-clean fluxes from through-hole, hybrid, and surface mount electronics in batch, in-line, and ultrasonic cleaning systems. The product was specifically formulated to clean solder joints to a bright, shiny finish without etching of the joints.

Benefits & Features

- High strength alcohol for fast effective cleaning
- Completely water soluble allowing for easy rinsing without oily residues
- A low volatility alcohol with little odor
- Low pH formulation results in bright, shiny solder joints and part surfaces without etching
- High flash point minimizes workplace hazards
- Low surface tension allows for cleaning of tight spaces and easy rinsing
- No ozone depleting substances, EPA SNAP approved, and low VOC's

Chemical Description

IONOX HC2 is formulated for cleaning difficult soldering fluxes and assembly residues. It accomplishes cleaning through the high solvency of the Kyzen alcohol with a specially formulated buffer package. It effectively cleans electronic components with or without the use of high impingement air sprays or ultrasonic agitation. Unlike common alcohols like isopropyl alcohol (IPA), the Kyzen alcohol has a greater dissolving capacity without highly volatile flammability. Fluxes and residues are held in solution with special activators and surfactants. Artificial emulsions or rinse aid chemicals are not required. NFPA ratings are Health 2, Flammability 1, and Reactivity 0.

Typical Properties

Flash Point (Tag CC)	None to Boiling	Specific gravity	1.060 - 1.080
Surface Tension	17-27 dynes/cm	Vapor pressure	< 10 mm Hg at STP
pH (100% solution)	9.6 - 10.8	Odor	Low/Mild
Appearance	Light Amber	Boiling Point (°C)	110 - 112

Typical Process

IONOX HC2 is placed into a stainless steel wash chamber at full concentration. Water dilution is not required. It is then heated to an operating temperature between 120°- 160°F. Washing is usually accomplished through spray under immersion, ultrasonic agitation, or inerted nitrogen atmosphere direct spray. Following the washing process, an immersion or direct spray heated water rinse is recommended. A heated rinse will speed the rinsing and drying process. Deionized electronic grade rinse water is also recommended to prevent dissolved solids from depositing on the cleaned parts. Following rinsing, a hot air drying process is usually initiated.



Closed Loop Water Treatment

Closed-loop water treatment for the IONOX HC2 is accomplished with specially designed reverse osmosis (RO) membranes and equipment provided by Kyzen Corporation. On occasion, cart and resin filtering are used, but they are used only in applications of very small rinse water loading or polishing steps and are limited in their ability to absorb larger quantities of contamination.

Product Material Compatibility

IONOX HC2 has an excellent track record of compatibility with most micro-electronic, hybrid and circuit board materials and components. Beyond this, Kyzen also offers additional material compatibility testing data on its cleaning agents as required.

Industrial Equipment Material Compatibility

IONOX HC2 is commonly used in stainless steel equipment. Unlike many solvents, this product may be used in equipment constructed of polypropylene and polyethylene. Manufacturers using other metals, plastics, and polymers should conduct long term use studies or contact Kyzen prior to installing equipment using IONOX HC2.

Safety

IONOX HC2 is non-combustible, non-flammable, biodegradable, and non-corrosive. Kyzen's Material Safety Data Sheet further outlines the safe use of this material.

Environmental Compliance

Greater than 95% of the materials used in IONOX HC2 are from products which are renewable resources. The key materials used in the product were selected not only for their cleaning effectiveness, but also for their low VOC character, biodegradability, and recyclability. Contact Kyzen regarding data that may be pertinent to your specific process.

Availability

IONOX HC2 is available in 1, 5, and 55-gallon containers.

Ordering Information

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