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Keyvex™ AQ 210

Keyvex™ AQ 210 is a neutral semi-aqueous precision cleaning fluid designed for effective removal of flux residues, solder paste, stencil residues, fingerprints, and light process oils. Its balanced solvent and low-foaming surfactant system provides enhanced wetting and organic-residue solvency, making it suitable for precision cleaning of electronic assemblies, manufacturing tooling, and compatible precision components.

Key Performance Characteristics

- Neutral semi-aqueous precision cleaning formulation
- Effective removal of flux, solder paste, stencil residues, fingerprints, and light process oils
- Enhanced solvency and wetting for organic manufacturing residues
- Low-foaming characteristics for compatible automated cleaning processes
- Suitable for ultrasonic, immersion, spray, and batch cleaning systems
- Water-rinsable where additional final rinsing is required

Applications

- Removal of flux residues, solder paste, stencil residues, fingerprints, and light process oils from electronic assemblies and production tooling
- Cleaning of printed circuit boards, compatible electronic assemblies, SMT stencils, screens, fixtures, and carriers
- Precision cleaning of compatible metal and engineered polymer components
- Intermediate cleaning prior to inspection, conformal coating, bonding, assembly, or other downstream manufacturing processes
- Suitable for ultrasonic, immersion, spray-in-air, and batch cleaning applications

Industries Served

- Electronics
- PCB & SMT Manufacturing
- Electromechanical Components
- Precision Engineering
- Industrial Manufacturing

Physical and Chemical Properties

Density (25°C), g/cm ³	0.95 ± 0.02
Surface tension (25°C), mN/m	38.6
Boiling point, °C	100
Flash point (open cup), °C	95
pH value	7.00 ± 0.2
Operating temperature, °C	20 - 90 (optimal: 50 - 70)
Solubility	Soluble in water

Environmental & Regulatory Status

Keyvex™ AQ 210 is a semi-aqueous cleaning formulation described in the product SDS as rapidly biodegradable and removable through appropriate wastewater treatment processes. Refer to the latest Safety Data Sheet and applicable local regulations for further information.

Materials Compatibility

Metals	Compatible with common metals and most alloys: stainless steel, aluminum, carbon steel, copper, brass, bronze, nickel, zinc, titanium, gold, silver, and tin.
Plastics	PC, PA, PTFE, PEEK, epoxy, PI, PE, PP, POM, PET.
Elastomers	FKM (Viton®), FFKM, and PTFE seals. Compatibility with silicone rubber, EPDM, NBR, neoprene, polyurethane, and butyl rubber should be verified prior to use.
Ceramics & Glass	Alumina, zirconia, quartz, borosilicate glass, soda-lime glass, sapphire, and most industrial ceramics.

Process Guidance

Recommended use	Precision cleaning of flux residues, solder paste, fingerprints, light process oils, and manufacturing contaminants from PCBs, electronic assemblies, production tooling, and compatible precision components.
Equipment	Suitable for spray-in-air, ultrasonic, immersion, and batch cleaning systems.
Bath Preparation	Fill the cleaning tank with the required quantity of water. Add Keyvex™ AQ 210 gradually to achieve the desired working concentration while circulating or agitating the bath. Mix thoroughly and heat to the recommended operating temperature before use.
Recommended Concentration	- Flux residue cleaning: 5-10% by volume in water. - Stencil solder paste cleaning: 15-20% by volume in water. - Red glue residue cleaning: 25-30% by volume in water. Final working concentration should be optimized according to residue type, contamination loading, cleaning method, and required cleanliness level.

Operating Range	Recommended process temperature: 40-80°C. Cleaning performance may be enhanced through increased temperature and ultrasonic agitation. Do not exceed the applicable equipment or product operating limits.
Cleaning Time	Cleaning time should be optimized according to residue type, contamination level, working concentration, operating temperature, component geometry, and cleaning method.
Rinsing	A DI-water rinse is generally not required where the validated cleaning process achieves the required surface cleanliness. Where higher cleanliness requirements apply, a final DI-water may be incorporated into the process.
Drying	Dry using hot air, forced air, or vacuum drying as appropriate for the component and process requirement.
Ventilation	Provide adequate workplace or local exhaust ventilation, particularly when the cleaning solution is heated or used in spray processes.
Drag-Out Control	Allow adequate drainage over the cleaning tank before transferring components to subsequent process stages. Appropriate rack orientation and drain time can reduce solution carryover and chemical consumption.
Bath Maintenance	Continuous filtration of the cleaning solution is recommended where practical. Remove accumulated suspended particles and insoluble contamination regularly. Maintain the required bath volume and working concentration through controlled replenishment. Replace part or all of the cleaning bath when accumulated contamination results in reduced cleaning performance or unacceptable residue levels.
Monitoring	Periodically monitor bath concentration, operating temperature, contamination loading, bath appearance, and cleaning performance to maintain consistent process results.

Waste Disposal

Dispose of waste product in accordance with applicable national and local regulations. Do not release untreated cleaning solution into the environment. Used cleaning baths may contain flux residues, solder paste, oils, metals, or other process contaminants that can affect disposal requirements. Refer to the latest Safety Data Sheet and applicable local regulations for detailed disposal guidance.

Storage Handling & Shelf Life

- Store in a clean, dry warehouse, away from heat sources, acids, strong alkalis, and oxidants, and protect from high temperature or direct sunlight.
- This product is a colorless and transparent liquid. Avoid excessive vibration during transportation and do not store upside down when stacking.
- This product is volatile. Ensure containers are tightly sealed during storage and transportation.
- Shelf life: 12 months

Packaging

20 L/pail (20kg) or 200L/drum (200 kg)

Safety Statement

This document is not a Safety Data Sheet. Before handling, storage, transport, or disposal, users should review the latest Safety Data Sheet and conduct a workplace risk assessment according to local regulations.

Although no closed-cup flash point is reported, vapors may form flammable mixture under certain conditions and in the presence of high-energy ignition sources. Use only with suitable vapor control, ventilation, and equipment grounding.

Limitation/Validation Statement

The information provided represents typical values and should not be treated as product specifications unless expressly stated. Suitability for a specific application should be confirmed by customer testing under actual operating conditions.