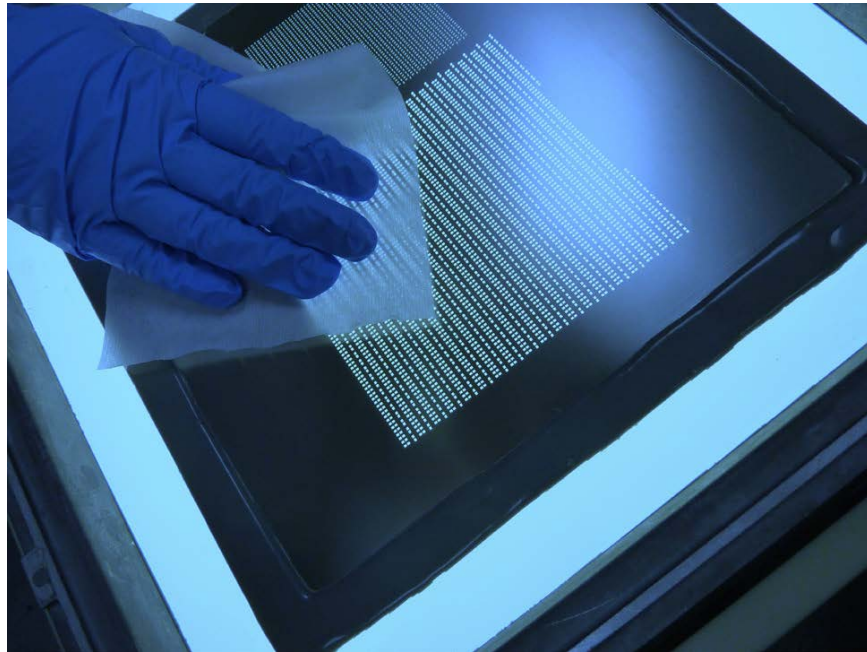


# CYBERSOLV® C8882

## *Understencil Wipe/Stencil Cleaning Solvent*

CYBERSOLV C8882 is a fast-acting stencil cleaning solvent designed for the understencil wipe and hand cleaning processes. C8882 instantly dissolves all flux types within the solder paste, including water soluble, rosin and low residue no-clean fluxes. C8882 is ready to use for bench-top electronics flux cleaning with proven efficacy on processed reflow, wave and core solder wire flux typically found in electronic assembly applications.



*The information contained herein is based on available data from reliable sources and is accurate to the best of KYZEN Corporation's knowledge at the time of this publication. KYZEN makes no warranty, expressed or implied, of merchantability or fitness for a particular purpose, course of performance or usage of trade. The user is solely responsible for determining the suitability and completeness of such information for their particular application and for adopting appropriate safety precautions. Physical properties listed within are typical values based on samples tested and should not be construed as guaranteed analysis of any specific lot or as specifications for the product. Other factors may involve additional safety or performance considerations- refer to the KYZEN product Safety Data Sheet (SDS) for complete safety information. This data is not to be taken as a warranty or representation for which KYZEN assumes legal or financial responsibility.*

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## PRODUCT DESCRIPTION

CYBERSOLV C8882 is a solvent-based stencil cleaning fluid specifically designed to clean wet solder paste, un-cured SMT (chip bond) adhesive and flux residue from stencils (conventional and plastic pump), mis-printed PCBs, wave soldering pallets and tools, fixtures and squeegees. C8882 dissolves the flux vehicle, which allows solder balls to release from the stencil during the stencil printer wipe sequence. CYBERSOLV C8882 has a flash point over 60°C and evaporates cleanly from the stencil or PCB with no solvent residues remaining.

### **CYBERSOLV C8882 is effective for use within the following cleaning processes:**

- Understencil Wipe Cleaning ~ Solvates the flux resin compositions within uncured solder pastes. Effectively cleans and removes solder paste that has a tendency to stick to the aperture walls and bottom of the stencil. Following the wipe process, a dry wipe and vacuum process rapidly dry the stencil following the cleaning process.
- CYBERSOLV C8882 can be used to hand-wipe a stencil following the printing process.
- Semi-Manual Ultrasonic Stencil Cleaning Systems ~ CYBERSOLV C8882 is an effective cleaning agent for use with the GEN3 and SAWA ultrasonic absorption mat stencil cleaning systems.
- Solvent Stencil Cleaning Spray Systems ~ CYBERSOLV C8882 is designed to run in solvent spray-under-immersion and spray-in-air cleaning machines that were commonly designed to clean with IPA. For optimal performance, CYBERSOLV C8882 should be processed "as is" at 100% concentration at ambient temperatures. C8882 wets and rapidly dissolves the flux that holds the solder spheres into a paste. Upon dissolution of the flux, solder balls release from the apertures and drop to the bottom of the cleaning tank. In well-designed stencil cleaning equipment, the solder balls are caught in recirculation filters, greatly extending bath life. C8882 effectively washes and rinses the stencil.
- Manual bench top cleaning of processed rosin reflow, wave and core solder wire flux. 10-minute soak followed by 10-minutes in ultrasonic. Rinse in clean C8882 and proceed to a heated >60C dryer.

CYBERSOLV C8882 has no ozone depleting or global warming potential and is non-hazardous. KYZEN is the leading provider of environmentally responsible cleaning chemistries to industries worldwide, with a strong commitment to safety, quality and compliance wherever our products are sold. Global compliance certificates are available for download at the following link. <https://www.kyzen.com/about-kyzen/compliance/>

Please reference the CYBERSOLV C8882 Safety Data Sheet for other safety and/or performance considerations

## CHEMICAL AND PHYSICAL PROPERTIES

This KYZEN product is environmentally responsible and operator safe, when handled in accordance with good industrial hygiene and safety practices. *Table 1* summarizes important chemical and physical properties of this product.

Parameter	100% Concentrate	Special Values
Clarity	Clear	
Color	Light Yellow to Colorless	
Odor	Solvent	
Flash Point, (TCC) °F/C	142°F/61°C	
Boiling Point, °F/C	270°F/132°C	
Volatile Organic Compound (VOC) gm/L EPA Method 24	876	GB 38508-2020 <sup>1</sup>
Vapor Pressure, VOC Components, mmHg at 20°C	0.7 hPa (0.5mm Hg)	
Chemical Oxygen Demand, (COD), mg/L (ppm)	ND	
Specific Gravity	0.886	
Weight/gallon	7.39	
Non-volatile Residue (NVR) %	0.0%	

<sup>1</sup> See Appendix for document

## PRODUCT USE DIRECTIONS

CYBERSOLV C8882 is specifically engineered for hand wiping, under stencil wiping, ultrasonic semi-manual and automated solvent spray-under-immersion and spray-in-air cleaning machines. C8882 is a solvent-based engineered cleaning fluid designed to run at 100% concentration at ambient temperatures.

1. **Hand Wiping:** CYBERSOLV C8882 can be applied to the stencil using a spray bottle or via a lint-free wipe. Wipe the dirty stencil to remove the bulk of solder paste from apertures. Follow the first wipe with a clean wipe, then allow the stencil to dry. Inspect the stencil to assure cleanliness.
2. **Under Stencil Wiping:** Follow the stencil printer manufacturer suggestions when using a solvent wipe. CYBERSOLV C8882 rapidly dissolves the flux resin binder and releases the solder balls from stencil apertures. Follow the wet wipe with a dry wipe and vacuum to remove the cleaning solvent and allow for rapid drying.
3. **Ultrasonic Semi-Manual Stencil Cleaning:** Using a spray bottle, apply CYBERSOLV C8882 to the top side of the stencil. The stencil is placed into a frame mounted over a specially designed foam pad that is overlain with disposable paper. Spray C8882 to dampen the under-screen paper and the stencil area. Use the ultrasonic 40kHz generator over the image area. Lift stencil from the pad and allow to dry.
4. **Solvent Stencil Cleaning Machine:** CYBERSOLV C8882 is safe to run in cleaning machines designed to process IPA and other solvent-based stencil cleaning agents. C8882 can be used in either spray-in-air or spray-under-immersion machines. Cycle times of 2-10 minutes are typically suitable, followed by a clean wash and dry cycle to complete the process. Follow equipment recommendations to optimize the process. Solder balls are removed from the process using machine designed filtration methods. Product use directions specific to these versions are detailed below.
5. **Manual bench top flux cleaning of PCB's processed with rosin reflow, wave and core solder wire flux:**
  - Apply a small amount of CYBERSOLV C8882 on the board, wetting the residues.
  - Gently scrub the board with an acid brush until the residues dissolve. Periodically applying a small amount of CYBERSOLV C8882 will help loosen contaminants.
  - Once the residues dissolve, use a clean brush to apply a small amount of CYBERSOLV C8882 to rinse the board.
  - After rinsing, CYBERSOLV C8882 will dry residue free. Heated or clean compressed air will expedite the drying.
  - As an option, ultrasonic cleaning is also recommended.
    - A 10-minute soak at ambient temperature followed by 10-minutes in ultrasonic. Rinse in clean C8882 and proceed to a heated >60C dryer.

## COMPATIBILITY INFORMATION - SUBSTRATES AND EQUIPMENT

All chemicals have the potential to adversely affect substrates and process equipment. As such, the effects of short-term exposure for substrates common to parts and assemblies and the effects of long-term exposure for materials of equipment construction must be considered. Tables 2, 3 and 4 summarize known compatibility recommendations regarding the use of this product with specific substrates. These compatibility recommendations are based on internet research of C8882's major formulation materials and internal KYZEN testing on the product as a whole of commonly available materials. Elastomers and plastics can vary greatly in quality. Metals, elastomers and plastics can vary greatly in quality. For the most accurate results on long-term exposure of your materials, it is advised to perform additional testing.

**Table 2: Plastics and Elastomers**

Brand Name	Generic Description	C8882
Delrin	Acetal	A
Acrylic	Acrylic	E
Nylon 6/6	Polyamide	A
Lexan	Polycarbonate resin	E
ABS Plastic	Acrylonitrile butadiene styrene	E
PEEK	Polyetherether Ketone	E
PVC	Polyvinyl Co-polymer	A
Natural Rubber	Black rubber	E
NORYL®	PPO™ resin and polystyrene	E
Neoprene	Polychloroprene	A
PPS (Ryton®)	Polyphenylene sulfide	E
PTFE (Teflon)	Polytetrafluoroethylene	A
Kalrez® 4079	ASTM D395B: FFKM (FFPM)	A
Kvnar	Polyvinyl fluoride	A
Aflas	Tetrafluoroethylene and Propylene	A
Tefzel	Ethylene/tetrafluoroethylene copolymer	A
Polypropylene	Polypropylene	A
Hypalon®	Chlorosulfonated Polyethylene (CSPE)	E
Chemraz®	Perfluoroelastomer (FFKM)	E
Alathon	High density polyethylene	A
Viton A or B	Fluoroelastomer	A
Low density polyethylene	Polyethylene	A
Ultem™	Polyether imide	A
Silicone Rubber	Silicone Rubber	A
CPVC	Chlorinated Polyvinyl Chloride	A
Buna-S	Styrene Butadiene	E
Buna-N	Styrene Nitrile Copolymer	E
Kel-F® / Neoflon®	PolyChloroTriFluoEthylene (PCTFE)	E
EPDM	Ethylene Propylene Diene Monomers	A

**Table 3: Metals and Alloys**

Substrate	C8882
2024 Aluminum- Bare	A
2024 Aluminum- Alclad	A
2024 Aluminum- Anodized	A
Black Anodized Aluminum	A
3003, 6061 and 7075 Aluminum	A
7075 Aluminum- Alclad	A
Silver	A
Gold	A
Copper	A
1018 Steel	A
304 and 316 Stainless Steel	A
Titanium	A
Steel, Galvanized	A
Tin-Lead Based Alloys	A
Tin-Copper Based Alloys	A
Tin-Silver-Copper Based Alloys	A
Bismuth-Tin Based Alloys	A

**Ratings - Chemical Effect - 168 hours**

A - Excellent

B - Good: Minor Effect, slight corrosion, or discoloration.

C - Fair: Moderate Effect, not recommended for continuous use. Softening or loss of strength and swelling may occur.

D - Severe Effect: Not recommended for any use.

E - Test / Information not available.

**Explanation of Footnotes**

1-Satisfactory to 72°F (22°C)

2-Satisfactory to 120°F (48°C)

3-Repeated wash exposure beyond a typical process cycle time can lead to discoloration or etching of the surface.

**Table 4: Equipment**

**CYBERSOLVC8882 is approved for use by the manufacturers of electronic assembly printers. Contact your specific manufacturer or KYZEN for detailed information.**

## ***SHELF-LIFE***

Retain samples are taken from every product batch and kept for a minimum of five years. Additionally, randomly selected retain samples of key products are maintained indefinitely. KYZEN determined the shelf life of our aqueous and non- aqueous products by closely monitoring the quality of product samples stored in these retain samples over time. The results of this study provided valuable information on the stability of our products over time.

**With few exceptions\*, KYZEN products are acceptable for use up to FIVE (5) years, when packaged in sealed containers of five gallons or greater.**

Conversely, it is more difficult to predict the long-term integrity of a product in containers holding less than five gallons, as well as unsealed containers of any size. Smaller product containers and unsealed containers are more susceptible to contamination and evaporation, which preclude extended expiration dates. Capping opened containers when not in use can minimize contamination and evaporation. Exceptions to shelf-life are clearly documented on product-specific Certificates of Compliance.

## ***PRODUCT COLOR***

For all KYZEN products, *color does not indicate product quality*; therefore, color is not used as a quality control parameter or specification for final product evaluation. KYZEN products are made from a blend of raw materials, some of which are organic solvents derived from agricultural materials. After 25 years of collecting data on KYZEN products containing these raw materials, studies have shown that these materials can contribute to color variances in concentrated and diluted product, as well as slight color variations over time. These same studies confirm that while *color changes may occur, product quality is unaffected*. To assure product quality, KYZEN evaluates each lot of these raw materials to verify integrity before blending.

## ***STORAGE***

Store this product in the original container at temperatures between 5-50°C / 41-122°F indoors, or out of direct sunlight. Most products have a freezing point much lower than water and a very high boiling point; therefore, most KYZEN products do not require any special handling to address temperature changes. KYZEN conducts freeze/thaw studies on all products to determine if product quality is affected by such factors and completes further testing if necessary. Following best practices always use the oldest inventory first and keep your stock rotating. *Exceptions to storage temperature requirements are clearly documented on product-specific Certificates of Compliance.*

## ***HANDLING***

This product is environmentally responsible and operator safe, when handled in accordance with good industrial hygiene and safety practices. Refer to the Safety Data Sheet (SDS) regarding safe handling practices with this product. It is always a good practice to wear safety glasses or goggles and nitrile gloves whenever handling C8882. For transferring bulk liquid of C8882, pumps are available at <https://www.goatthroat.com/>



## ENVIRONMENTAL CONSIDERATIONS

KYZEN products are generally compatible with common primary and secondary waste treatment processes; however, the addition of soils removed during the cleaning process can significantly escalate environmental concerns. These environmental considerations vary widely depending on the cleaning machine and the operating parameters of your particular cleaning process. As such, the selection of the cleaning agent must incorporate the inherent impact on air emissions, water discharges and waste generation from your facility. Each of these three environmental mediums may require a permit depending on the usage rate and existence of other air emissions, water discharges and waste generation at your facility.


### ***What are KYZEN's responsibilities for proper disposal?***

- The *United States OSHA Hazard Communication Standard* requires suppliers to provide a GHS compliant Safety Data Sheet (SDS) for all products.
- KYZEN is responsible for providing known information on toxicity testing, health hazards, waste disposal, safe work practices, protective equipment, material reactivity and flammability, etc.
- Note: All information needed to properly classify a product for disposal, wastewater treatment or discharge into a wastewater stream can be found in the product SDS, specifically in Sections Three (3), Nine (9), Twelve (12) and Thirteen (13). Therefore, KYZEN does not disclose proprietary, non-hazardous product constituents for this purpose.

### ***What are the end user's responsibilities for proper disposal?***

- It is the user's responsibility to seek guidance and rule interpretation from appropriate authorities before applying for any required permits. This is usually accomplished by providing a copy of the product SDS, supplied by KYZEN, to local authorities. Because local regulations are often more stringent than federal regulations, it is imperative for the user to consult with local regulatory agencies before starting a waste water discharge, or introducing new chemicals or chemical processes to an existing permitted waste water discharge stream.
- The three regulatory agencies that a user must review are federal (national), state (regional), and local. Each company must meet the minimum federal standards. The state regulations may be the same or even more restrictive than the federal. Finally, the local community's regulations will be at least as restrictive as state regulations.
- The discharge of any wastewater stream, both by total flow and by chemical make-up must conform to national, regional and local regulations in all nations. Such regulations vary from very strict limits with little derogation to relatively flexible conditions. Many nations, particularly in Europe, have very strict legal requirements dictated on a national scale, covering many aspects of waste water quality. Other nations have less comprehensive regulations, covering only the more important considerations. Local authorities may offer derogations to national legislation if the local treatment plant is able to handle the otherwise out-of-tolerance waste.

**The end user is ultimately responsible for compliance with all applicable regulations.**



**Your KYZEN Representative is available to  
assist you throughout your cleaning process.**

**KYZEN Technical Support  
1-800-845-5524**

**[https://www.kyzen.com/  
contact-us/](https://www.kyzen.com/contact-us/)**

*Materials furnished under all KYZEN orders are manufactured in accordance with KYZEN Corporation specifications. KYZEN maintains documentation of conformance to these specifications, which is available for review upon request. All raw materials used in KYZEN products are obtained from suppliers on KYZEN's Approved Vendor List (AVL), pursuant to ISO certified standard operating procedures for raw material quality control.*

Nashville, TN | Penang, Malaysia | Aalter, Belgium | Manchester, NH | Shanghai, China

August 18, 2020

To whom it may concern:

敬启者

**RE: GB 38508-2020: Limit standard for volatile organic compounds content in cleaning agents**

**关于GB 38508-2020: 清洗剂挥发性有机化合物含量限值**

KYZEN's CYBERSOLV C8882 concentrate contains 876 g/L of VOC, as reported in the product's Technical Supplement. This value was determined in compliance with Section 6.3 of the regulation.

KYZEN's CYBERSOLV C8882 浓缩液中VOC含量是 876 g/L, 具体参见该产品技术文件。该数据是参照国标6.3中的试验方法而测定得出的。

Per Section 3, it is classified as an Organic Solvent (OS) type cleaning agent, therefore:

根据国标第3部分定义, 该产品被定义为有机溶剂清洗剂, 因此

- **It is acceptable for use under the VOC regulation ( $\leq 900$  g/L)**
- 该产品在所有浓度下使用都符合VOC 国标 $\leq 900$  g/L的限值要求

Note: *This standard does not apply to cleaning agents used in aerospace, nuclear industry, military industry, and semiconductor (including integrated circuits) manufacturing.*

注意: 本标准不适用于航空航天、核工业、军工、半导体(含集成电路)制造用清洗剂

Thank you for your continued interest in KYZEN products and technical services.

感谢您一如既往地关注KYZEN 的产品和技术服务。

Sincerely,

谨上



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