

TECHNICAL DATA

UNI-CLEAN 9.0 – KC 3000

UNI-CLEAN 9.0 is a high performance cleaning agent designed to replace hazardous, toxic, or waste intensive materials. UNI-CLEAN 9.0 is used to dissolve adhesives and as an emulsifier for organics, hydrocarbons, or petroleum products. Corrosion inhibitors may be added to protect sensitive metals or alloys.

APPLICATIONS

UNI-CLEAN 9.0 is a concentrated powder form detergent designed to be dissolved in aqueous cleaning systems. It has been demonstrated to work well in removing a variety of materials. Generally, the product is used in heated and agitated cleaning systems such as a heated ultrasonic. UNI-CLEAN 9.0 is safe for a wide range of materials including those used in manufacturing sensitive devices. Based upon bench testing, we suggest the following dilution. We recommend tests be performed to demonstrate the material usage. UNI-CLEAN 9.0 concentration usage will depend upon the material, contaminant, substrate, agitation, heating, and the frequency of bath changing. All concentrations are reported as a percent (%w/w) of UNI-CLEAN 9.0 present in water, depending upon the material to remove:

<u>Material to be removed</u>	<u>UNI-CLEAN 9.0 (%w/w)</u>	<u>Conditions</u>
Uni-bond adhesive	1-2	ultrasonic, >50C, 1-3 min
Aqueous metal working coolant w/ particulate	1-2	ultrasonic, >50C, 1-3 min
Lapping slurries, aqueous w/ particulate	1-2	ultrasonic, >50C, 1-3 min
Lapping slurries, non aqueous w/ particulate	3-5	ultrasonic, >50C, 3-5 min
Non aqueous lubricant w/ particulate	4-7	ultrasonic, >50C, 3-5 min
General oils, greases, films, sludge	4-7	ultrasonic, >50C, 5-10 min

CHEMISTRY

UNI-CLEAN 9.0 involves a delicate formulation of chemistries. This formulation is composed of phosphates, carbonates, and silicates with surfactants to offer properties, which aid in maximum solubility and dispersion of dissimilar materials. The surfactants in the UNI-CLEAN 9.0, exhibit low cloud point chemistry. This chemistry encourages micelle formation at elevated temperatures causing a hydrophobic surface to form on the parts to be cleaned. This phenomenon causes "sheet rinsing" to occur when rinsed with ambient water. This rinsing will solvate the micelle layer and produces a pristine cleaned part. An additional advantage of the micelle formation is a microscopic protective quality. Low foaming characteristics of UNI-CLEAN 9.0 will maintain cleaning/rinsing efficiency of microscopic dimensions during a variety of agitation conditions.

USAGE

UNI-CLEAN 9.0 is intended to be diluted in water and used as an aqueous based-cleaning agent. In general, <5% w/w is recommended for most systems. To affect the "sheet rinsing" activity, a temperature >50C must be used. Subsequent rinsing is recommended at room temperature. Agitation is recommended to include ultrasonic, N2 bubbling, spray wash, or combinations thereof. UNI-CLEAN 9.0 is recommended for general aqueous cleaning systems and ultrasonic agitation.

RINSE

Step wise rinsing commonly works best for most applications. UNI-CLEAN 9.0 is used in the recommended concentration with agitation and temperature control. Follow up rinsing in pure water or similar media is recommended. In most cases, a single rinse bath is all that is necessary to facilitate residue removal.



ISO 9001: 2000 CERTIFIED

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COMPATIBILITY

UNI-CLEAN 9.0 is completely metal friendly. When diluted in water, the system is slightly alkaline and nonreactive towards many of the most reactive metals, such as copper and aluminum. UNI-CLEAN 9.0 is compatible with all plastics and materials used in manufacturing and cleaning systems. No long-term negative effects towards metals, alloys, or plastics are witnessed in using UNI-CLEAN 9.0 at the recommended dilution and conditions.

TOXICITY

UNI-CLEAN 9.0 contains only non hazardous materials, which are not regulated under the OSHA Hazard Communication Standard or SARA Title III (see MSDS).

WASTE

Uncontaminated UNI-CLEAN 9.0 may be disposed directly to the sewer for treatment at a local Publicly Owned Treatment Works (POTW). Due to the high biodegradability of UNI-CLEAN 9.0, treatment at a POTW is common via biodegradation during secondary treatment. Approvals should be received prior to discharge.

AVAILABILITY

UNI-CLEAN 9.0 is available in 3 pound containers, cases and drums

The information and recommendations contained herein have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when this was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

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