# Emulsified oil and water-separating products

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The build-up of emulsified waste oil can contaminate aqueous cleaning solutions. This oil can decrease the solution's cleaning capability. Separating oil from the water is an effective technique for extending the usefulness of process fluid or in pre-treating the wastewater prior to sewering.

Conventional oil-water separation methods, such as gravity separation and coalescence, are generally used for mechanically dispersed oil. Typically, emulsions formed in cleaning solutions have smaller droplets making them more stable, and conventional removal methods cannot split the emulsion.

Ultrafiltration and chemical treatment are two effective separation methods. Ultrafiltration membranes can isolate emulsified oil droplets from water. As a result, ultrafiltration produces a reusable oil-free solution and an oil-rich concentrate. Chemical treatment requires adding a combination of either a salt or a polymer with an acid to destabilize the emulsion, allowing the oil to separate from the water. Additional separation equipment, such as a skimmer, is used in conjunction with emulsion-breaking chemicals.

These related reference lists are also available from MnTAP: *Coolant Maintenance Equipment and Supplies* [#4] and *Centrifuge Equipment and Services* [#2].

MnTAP maintains this list of products for separating emulsified oil and water solely as a service to Minnesota companies. This is not a complete list of suppliers or products and does not represent an endorsement by MnTAP. MnTAP, by providing this list, does not represent that the products do or do not ensure compliance with environmental and safety laws in any specific application.

| Company | Local Representative | Notes |
|---|---|---|
| Alkota Cleaning Systems, Inc.<br>Alcester, SD<br>800.255.6823<br>www.alkotacleaningsystems.com | American Pressure, Inc.<br>Robbinsdale, MN<br>763.521.4442 | Portable and large-scale systems for reuse of wash water |
| Edje Tech Services<br>Wellington, OH<br>800.242.0425<br>www.edjetech.com | | Ultrafiltration to recover 50-20,000 gpd of synthetic coolant, wash water, or mop water. |
| Infinitex<br>Clarence Center, NY<br>716.741.8381<br>www.splitter.com | | Units are available to process more than 50 gpd standard units. Can recycle wastewater |
| Koch Membrane Systems, Inc.<br>Wilmington, MA<br>888.677.5624<br>www.kochmembrane.com | | Konsolidator filtration systems process over 5,000 gpd. Wide range of applications including cleaning and machine fluid recycle. Recovery rates of 90-99% are common. |



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|---|---|---|
| MonlanGroup, a division of Lafourch Mfg.<br>Cleveland, OH<br>800.493.3462<br>www.monlangroup.com | | Ultrafiltration systems extend wash water, rinse water, and coolant. |
| Sanborn Technologies<br>Walpole, MA<br>508.660.9150<br>www.sanborntechnologies.com | | Ultrafiltration to recover 50-20,000 gpd of synthetic coolant, wash water, or mop water. |

## Company Contact List

**Alken-Murray Corp.**
New Hyde Park, NY
718.224.0754
www.alken-murray.com

**Beckart Environmental**
Kenosha, WI
262.656.7680
www.beckart.com

**Chemtall Oakite**
Berkeley Heights, NJ
800.526.4473
www.oakite.com

**TramFloc, Inc.**
Tempe, AZ
480.491.6895
800.613.6803
www.tramFloc.com

**Taskem, Inc.**
Cleveland, OH
216.351.1500

**Local Representative: (Taskem)**
W.D. Forbes Company
Minneapolis, MN
612.378.1917



## For More Information

MnTAP has a variety of technical assistance services available to help Minnesota businesses implement industry-tailored solutions that maximize resource efficiency, prevent pollution and reduce costs. Our information resources are available online at <mntap.umn.edu>. Please call MnTAP at 612.624.1300 or 800.247.0015 for personal assistance or more information.