

# Degreasing / Parts Washing

## Potential Environmental Impacts:

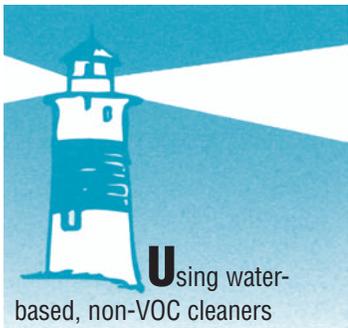
Degreasers used to clean metal parts may be organic solvents (chlorinated or non-chlorinated) or water-based cleaners. Organic solvents usually contain Volatile Organic Compounds (VOCs) which can evaporate quickly. Many VOCs combine with combustion emissions to form ground level ozone, a major component of “smog.” Ozone damages lungs and degrades many materials. When solvents are released and reach water, even in very small quantities, they may render the water unfit for human consumption and uninhabitable for aquatic life. Many organic solvents are also combustible, which may pose a fire hazard. For the purpose of this section “cold cleaning” means the batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing, or immersion while maintaining the degreasing solvent below its boiling point.

## Legal Requirements:

- A hazardous waste determination must be conducted to establish whether or not disposal of waste solvents and parts washer solutions is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. A hazardous waste determination must also be conducted on any materials used to clean a spill. Manage hazardous waste as described in Appendix B.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See Appendix F for more information.
- See “Rags” fact sheet for more information on managing solvent-soaked rags.
- Owners or operators of cold cleaning units must follow these equipment design and operating procedures for parts washing [RCSA §22a-174-20(l)]:
  1. The cover must be easily operated with one hand and closed whenever the parts washer is not being used for 2 minutes or more.
  2. Parts must be covered during draining.
  3. Equip the cleaning device with a facility for draining cleaned parts constructed internally so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  4. Waste solvent must be stored in covered containers and do not dispose of waste degreasing solvent or transfer it to another party, in a manner such that greater than 20 percent of the waste degreasing solvent, (by weight) can evaporate into the atmosphere.
  5. Cleaned parts must be drained for at least 15 seconds, or until dripping ceases, whichever is longer.
  6. Degreasing solvent must be sprayed as a compact fluid stream (not a fine, atomized, or shower type) and at a pressure which does not exceed 10 psi.
  7. Operation must cease at the occurrence of any visible solvent leaks.



**P**roducts that list compounds with “...*chloro*...” are chlorinated compounds, most of which are hazardous due to their toxicity. Many non-chlorinated organic solvents and common parts washer solutions such as petroleum naphtha or mineral spirits are also typically hazardous due to their ignitability.



**U**sing water-based, non-VOC cleaners instead of solvent-based degreasers may help minimize your facility's regulatory burdens and waste disposal costs.

8. Post labels on or near each unit summarizing the applicable operating requirements.
9. Minimize the drafts across the top of the parts washer such that whenever the cover is open the unit is not exposed to drafts greater than 40 meters per minute, as measured between 1 and 2 meters upwind, and at the same elevation as the tank lip.
10. Keep monthly records on the amount of solvent added to each unit and keep records for a minimum of two (2) years.

### Best Management Practices:

- ★ Use parts washer units with remote reservoirs for parts cleaning liquids.
- ★ Use water-based, non-VOC cleaners that are less hazardous than solvent-based degreasers. They are also less toxic and non-flammable. Don't use a toxic or flammable organic solvent if you don't have to.
- ★ If using VOC-based solvents is unavoidable, catch excess solvents in a pan and reuse.
- ★ Do not mix or add other types of solvents to any degreaser.
- ★ Never discard any degreasing solvent into sinks, floor drains, or onto the ground. It will ultimately find its way to local waters, and as little as a thimble full may render thousands of gallons of water uninhabitable for aquatic life or unfit for human consumption. You may be held responsible for remediation costs.
- ★ The CT-DEP is aware of the following companies that can provide less hazardous parts washing systems. This list is not comprehensive and the CT-DEP does not endorse these vendors or services over any others:

COMPANY NAME	PHONE & FAX	WEBSITE
Advanced Liquid Recycling	Toll Free: 800-582-5406 Phone: 203-238-6771 Fax: 203-630-4415	www.advancedliquidrecycling.com
Buckeye International	Phone: 860-321-2583 x270 Fax: 314-298-2850	www.buckeyeinternational.com
Chem Station New England	Toll Free: 800-273-8265 Phone: 860-291-2863 Fax: 860-291-2864	www.careywiping.com
Clayton Assoc., Inc.	Phone: 800-321-2583 x270	www.jclayton.com
Connecticut Cleaning & Heating Equipment	Phone: 800-727-3295 Fax: 860-658-5765	
Hubbard Hall Waterworks Service	Phone: 203-756-5248 Fax: 203-591-3483	www.hubbardhall.com
Safety Kleen	Phone: 508-867-7184 Fax: 860-953-8608	www.safetykleen.com
System One	Toll Free: 800-711-1414 Phone: 305-593-8015 Fax: 305-593-8016	www.systemonetechnologies.com
United Laboratories	Phone: 800-323-2594 Fax: 630-443-2087	www.bearthsmart.com
ZEP Manufacturing	Phone: 877-428-9937	www.zep.com

### Checklist for Clean Marina Certification:

- ✓ Do you use water-based, non-VOC degreasers and part washers, if practical?

YES NO N/A