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## Advantages of GreenCut compared to traditional metalworking fluids

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<tbody>
<tr>
<td><strong>High Performance</strong></td>
<td>extends tool life by 40%, bandsaw blade life 2-3 x longer compared to Blaser Swisslube and LENOX bandsaw coolants.</td>
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<tr>
<td><strong>Universal across Applications</strong></td>
<td>tapping, drilling, sawing, cutting, grinding, stamping, CNC plasma cutting; excellent in misting applications</td>
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<tr>
<td><strong>Universal across Materials</strong></td>
<td>any metal or alloy, diamonds, stone, glass, polymers, specialty plastics, ceramics</td>
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<tr>
<td><strong>Cleanliness</strong></td>
<td>not sticky, does not leave marks on parts or surfaces, not slippery when gets on the floor, no messy emulsions; prevents malodours in shop and is scented leaving your shop smelling fresh</td>
</tr>
<tr>
<td><strong>Cleanability</strong></td>
<td>easy to clean off the parts simply by washing the part in water/pressurized water or wiped off. Parts can then be painted, powdercoated or welded after drying.</td>
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<td><strong>Easy Maintenance</strong></td>
<td>only check pH every 1-2 weeks. No refractometers, water hardness measurements, nitrite content measurements, foam tests, bacterial tests.</td>
</tr>
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<td><strong>Stability</strong></td>
<td>No emulsion = no stability problems. Entirely stable in hard water.</td>
</tr>
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<td><strong>Health Benefits</strong></td>
<td>Entirely SAFE, non-toxic; Does not contain toxic chemicals or biocides. Does not cause skin problems, allergies, breathing problems. Originally approved under Canadian Environmental Choice Program as environmentally safe and non-toxic; Super-compliant with South Coast Air Quality Management District (SCAQMD)</td>
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<tr>
<td><strong>Compatibility</strong></td>
<td>Fully Compatible with seals and downstream processes</td>
</tr>
<tr>
<td><strong>Waste Management</strong></td>
<td>Direct sewer disposal ready</td>
</tr>
<tr>
<td><strong>Recycling</strong></td>
<td>Reusable</td>
</tr>
<tr>
<td><strong>Biodegradability</strong></td>
<td>Biodegradable</td>
</tr>
<tr>
<td><strong>Clients</strong></td>
<td>Toyota, ALCOA, Varsteel, Kodak</td>
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2. **How is GreenCut mixed?**
   It is mixed with water at 20:1 ratio.

3. **How easily can GreenCut be cleaned from machined parts?**
   Very easily! It is completely water soluble, hence can be washed away by dipping the part in water, spraying the part with pressurized water or wipe with a damp rag.

4. **Can parts be painted, powdercoated and welded?**
   Yes. Parts machined with GreenCut, washed with water and dried can be painted, powdercoated or welded without problems. Studies have shown that 20:1 diluted GreenCut can be easily washed away with water after several days and parts could be successfully painted. GreenCut diluted 10:1 if washed away after the machining process, the parts can be painted right after drying. If parts coated in GreenCut 10:1 dried for several days, it was not easily washed away with water.

5. **Does GreenCut prevent corrosion of machined parts?**
   Yes. GreenCut is attracted to the metal and coats it with a thin layer preventing corrosion. Once washed with water, the part is no longer protected against corrosion.

   Corrosion occurs when GreenCut diluted beyond 50:1, which is manifested by pH below 9.

   Solution:
   - pH monitoring is crucial
   - if corrosion occurs on the equipment, it is recommended to wipe down the equipment with an oily rag at the end of the week as part of the standard maintenance.

6. **Does GreenCut prevent foam formation?**
   Yes. GreenCut has anti-foam built into the formulation. At high pressures over 500 psi, or soft water, some have reported increased foaming. In such instance, we sell LubeCorp Antifoam, which is mixed into the solution at 4,000:1 (5 mL of anti-foam into 20 litres of coolant).

   Mix antifoam into a coolant in a separate pail until the antifoam gets absorbed. Then add the pail back into the coolant reservoir. Do not add antifoam directly into the coolant reservoir as this tends to cause mixing problems and if there is free oil, it will cause clotting.

7. **Does GreenCut leave sticky residues?**
   No. Not typically. We have had few customers report this. It happens when the water evaporates when the equipment runs too hot. If deposits occur, they are easily cleaned with wet rag.
8. **Can GreenCut be used for machining of soft metals, such as Aluminum?**
   
   Yes. GreenCut works very well in machining aluminum.

   Fine tapping and drilling of soft metals can pose problems due to low melting point of the metal (660°C) causing sticking, welding, galling

   **Solution:**
   - Adjust speed/feed rate (slow down)
   - Use correct tools
   - Use pecking cycles in drilling to remove chips
   - Use GreenCut at higher ratio (10:1 dilution)
   - Check aluminum hardness if correctly pre-treated

   **Other issues reported:**
   Aluminum discoloration – very rarely reported, can be due to cheap aluminum alloy

9. **How is GreenCut maintained?**
   
   Check pH every 1-2 weeks (pH strips can be purchased in any local chemicals supplies store, online, or from LubeCorp). If between 9-10, no action is required. If less than 9, add a little bit of fresh GreenCut to the solution to correct the pH to 9-10. The reason for this recommendation is that below pH 9, GreenCut is too diluted to give sufficient rust protection. It will still have excellent lubrication properties, but is too diluted (over 50:1) to prevent rust. The reason for reduced pH is that GreenCut is attracted to the metal and coats it, and is carried away from the solution by being on the machined parts.

   No refractometers are needed.

10. **How often do the sumps need to be cleaned?**
    
    With proper maintenance, no sum clean-outs are needed for at least one year.

11. **Can GreenCut be re-used?**
    
    Yes. With proper maintenance, GreenCut can be used over and over without the need for change-outs.

12. **How is GreenCut Disposed of?**
    
    GreenCut is non-toxic and can go directly into a sewer (confirm with your local authority).
    - Metal shavings and crud must be filtered out – use 3-5 micron filter for filtration
    - No oil visibly floating on top of the fluid – use skimmer if needed

    Avoid costly disposals entirely by proper filtration and maintenance. Re-use GreenCut.
13. How safe is GreenCut really?
   Very safe. Check this link to see a video of LubeCorp CEO drinking GreenCut.

   • Does not contain any oils, toxic chemicals, biocides
   • Totally prevents growth of aerobic and aerobic bacteria without the use of biocides
   • Easy on the hands and helps heal lacerations and dermatitis. Mist won’t cause asthma or breathing problems.
   • Originally approved by Environment Canada under the Environmental Choice Program
   • South Coast Air Quality Management District (SCAQMD) Super-compliant
   • TRGS 611 compliant
   • German Water Hazard Regulation: Non-Hazardous to Water; VwVwS = nwg

14. How does Bacteria Prevention Work?
   GreenCut biodegrades up to 5% of oils instantly, essentially removing the source of food for bacteria to grow on.

15. What is GreenCut Cutting/Misting Fluid?
   GreenCut Cutting/Misting Fluid is a concentrated coolant used in all machining applications. It has excellent lubrication properties while preventing corrosion, bacteria and foaming.

16. How long has GreenCut Cutting/Misting Fluid been on the market?
   Since 1999.

17. In how many CNC machines can GreenCut be found?
   GreenCut Cutting/Misting Fluid is in several thousand CNC machines, bandsaws, grinders.

18. In what applications is GreenCut Cutting/Misting Fluid used?
   • Machining
   • Cutting
   • Grinding
   • Drilling
   • Tapping
   • Sawing
   • Stamping
   • CNC Plasma Arc Cutting – Water Table Treatment
   • CNC Waterjets – Water Treatment
19. What is a typical GreenCut Performance?
   - Exceptional lubrication – burnishing - cooling of the workpiece
   - Extends tool life typically by 40% - even on hard materials/titanium
   - Increases bandsaw blade life 2-3 times compared to competing fluids
   - Works both in flood and misting applications
   - Gives superb surface finish
   - Contains superb anti-rust and anti-foam additives
   - Prevents bacteria without the use of biocides

20. Machining of which materials can GreenCut be used in?
   - Carbon Steel
   - Stainless Steel
   - Brass
   - Inconel
   - Titanium
   - Aluminum
   - Copper
   - Diamonds
   - Glass
   - Plastic
   - Stone

21. How different is GreenCut from other metalworking fluids?
   It is completely different! GreenCut is based on water and propylene glycol. It does not contain any oils, does not form emulsions, hence it doesn`t suffer from many drawbacks traditional fluids do. It does not contain any toxic chemicals and is entirely safe.

22. How does GreenCut Cutting/Misting Fluid`s performance compare to other metalworking fluids?

   ![Comparative Cutting-Fluid Load/Shear-Tests](image)

   COMPARATIVE CUTTING-FLUID LOAD/SHEAR-TESTS
   in Pounds per Square Inch

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Load in PSI</th>
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<tbody>
<tr>
<td>GreenCut</td>
<td>168,279</td>
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<tr>
<td>Anderol MW 300-S</td>
<td>4,224</td>
</tr>
<tr>
<td>Blasocut</td>
<td>4,833</td>
</tr>
<tr>
<td>Castrol Clearedge #6736</td>
<td>4,325</td>
</tr>
<tr>
<td>Jokisch W2 OP</td>
<td>3,105</td>
</tr>
<tr>
<td>ROCOL 370 Plus</td>
<td>3,317</td>
</tr>
<tr>
<td>Valcool VNT 900</td>
<td>3,172</td>
</tr>
<tr>
<td>Tap water (hard)</td>
<td>2,954</td>
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www.lubecorp.com 1-800-661-6100
23. How does GreenCut work?

- GreenCut has full access to the seizure zones on the tool rake-face due to its small molecular structure
- Prevents metal-to-metal contact
- Radically reduces friction plane heat
- Prevents formation of the Built-up Edge
- Prevents welding of the metal to the tool face under high pressure and heat typically leading to poor finish and tool damage
- Results in superb surface finish

More questions?
Call us at 1-800-661-6100
E-mail us at info@lubecorp.com

Related Products

GreenCut®
Plasma Arc Fluid
CNC plasma arc water-table fluid

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Super Lubricant
Instantaneous superlubrication and corrosion prevention

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