LubeCorp®
Manufacturing Inc.
ISO 9001:2008

About Us

- Founded in 1983
- Based in Calgary, Alberta, Canada
- Values – integrity, environmental safety, personal health, mutual respect, philanthropy
- Customers in Canada, United States, Mexico, Venezuela, Costa Rica, EU, Iceland, New Zealand, Singapore
- Collaboration with FH Canada`s Poverty Revolution via the Vroon 2012 Trust

www.lubecorp.com

LubeCorp®
Manufacturing Inc.
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Our Products

Originally Approved by:
Environment Canada
under the Environmental Choice Program

All-SAFE™ Product Line

SAFE GreenCut® Cutting/Misting Fluid

Exceptional lubrication and cooling in all machining applications

SAFE GreenCut® Plasma

CNC plasma arc water-table fluid

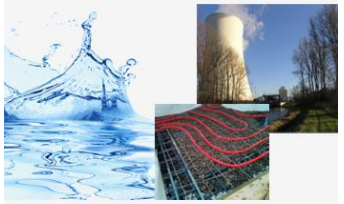
SAFE Lubritherm® Hydraulic Fluid

Propylene glycol-based hydraulic fluid with exceptional lubrication and safety

SAFE Biotherm Eliminator® Waste Digester

Waste water treatment fluid
Digests organic waste fast and safely

SAFE Heating/Cooling System Water Treatment



Eliminates microbial activity, corrosion, scaling and fouling effectively and safely

Lubricants

Excel 440 Super Lubricant

Instantaneous super-lubrication and corrosion prevention

POWERTRAIN Oil Conditioner

Industry-proven oil conditioner
Greatly increases performance

Cooling System Conditioner

Coolant supplement to enhance capacity of engine cooling system

Fuel Conditioners

Premium Diesel *Plus*

9-13 points cetane booster
12-15% fuel economy improvements

Winter Lube *Plus*

Multi-purpose, high quality winter fuel conditioner

Diesel Lubricator Plus

Stabilizes and lubricates diesel fuel
Moisture Control Technology (MCT)

Gasoline Octane Booster

7-9 points octane booster
Significant gasoline savings

Gasoline Injector Cleaner *Plus*

Fuel savings and engine cleaning gasoline additive

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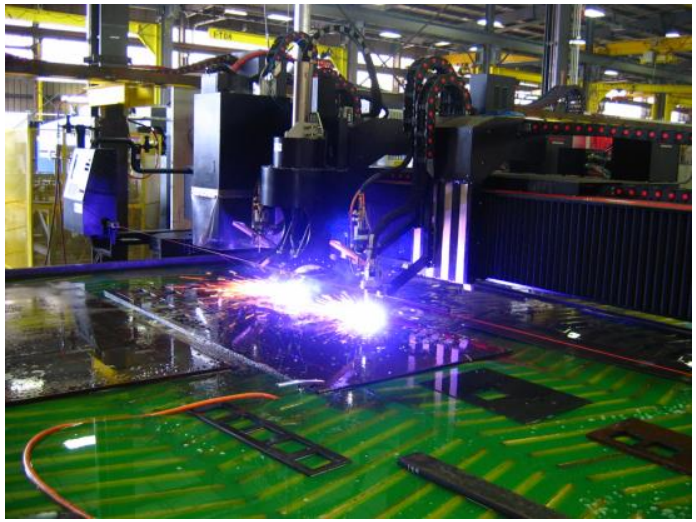
GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid



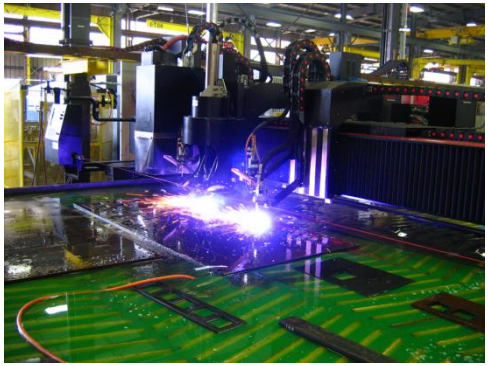
GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

Applications
CNC plasma arc cutting

Materials
Carbon Steel, stainless steel, brass, inconel, titanium, aluminum

Performance
- CNC plasma table coolant
- Prevents hot-spotting
- Does not thermally degrade, meaning no change-outs are required
- Comprehensive treatment package that contains superb anti-rust, anti-foam, and anti-bacterial chemistry
- Fully compatible with downstream processes – cut metal can be painted, powder-coated without additional cleaning/treatment required
- Easily rinsable with water - does not leave marks on the metal
- 100% water-soluble, mixed with water at 20:1 ratio
- No sump clean-outs needed for at least one year with proper maintenance and pump circulation
- Easy to maintain – check with pH strips
- Can be reused



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GreenCut® *Plasma*

CNC Plasma Arc Water-Table Fluid

On the market since 2005 – leading product in North America

Recommended to their customers by leading global OEM manufacturers

FARLEY·LASERLAB
The World's Specialist in Cutting and Welding Technology

Kinetic
Cutting Systems Inc

LDR
MOTION SYSTEMS

TORCHMATE®
A Lincoln Electric Company

Machitech®
AUTOMATION
Leading manufacturer of automated cutting solutions

MultiCam®
Your CNC Cutting Solution Experts

RHINO
CUTTING SYSTEMS

JB Technical Services, Inc.
P.O. Box 833 - Wexford, PA 15090-0833 (724) 934-1687
WATER TABLES
DOWNDRAFT TABLES

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GreenCut® *Plasma*

CNC Plasma Arc Water-Table Fluid

Sold by leading distribution companies in North America

PRAXAIR
Making our planet more productive.

Airgas®

MOTION® INDUSTRIES
Keeping Industry in Motion

ARC3 GASES

WAJAX INDUSTRIAL COMPONENTS

MATHESON TRI•GAS
ask. . .The Gas Professionals™

WESCO GAS & WELDING SUPPLY INC.

SIMS WELDING SUPPLY

ACKLANDS GRAINGER®
INDUSTRIAL • SAFETY • FASTENERS

FASTENAL®

Norco

CAMERON 50th ANNIVERSARY EST. 1982
Cameron
Welding Supplies • Industrial Supplies • Specialty Gases

MSC Industrial Supply Co.

oxarc 45 YEARS SERVING OUR CUSTOMERS

ROBERTS OXYGEN

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

Maintenance

1 + 2 + 3 + 4 + 5 = NO Waste Water Disposal

1	2	3	4	5
CNC Plasma Cutting System with Water Table	GreenCut Plasma	Circulation	Filtration	pH Maintenance

GreenCut Plasma

- Prevents corrosion, bacteria, foam, hot-spotting
- Provides excellent lubrication
- Mix 20:1 with tap water
- SAFE & Non-toxic

Circulation

- Use pump appropriate to the table size
- Have 1 inlet and multiple outlets along sides of the table
- Adjust flow to circulate table 1x per 2 hours

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

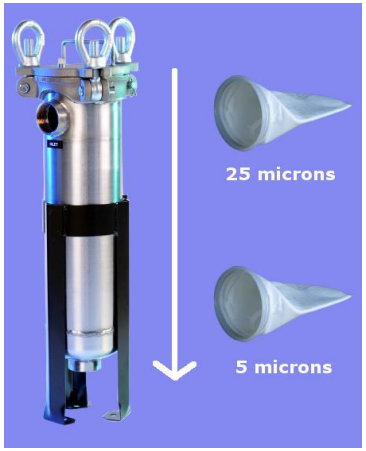
Maintenance

1 + 2 + 3 + 4 + 5 = NO Waste Water Disposal

1	2	3	4	5
CNC Plasma Cutting System with Water Table	GreenCut Plasma	Circulation	Filtration	pH Maintenance

Filtration

- Use filter housing of appropriate size
- Use single or 2-stage filtration - 1 bag@25 microns; & to achieve best results 1 bag@5 microns
- Change filter bag(s) as needed - typically 1x per week or once pressure differential of 15 psi is reached (bags are cheap)
  Wooden slats generate more charcoal and filters require more frequent changes. Plastic slats are recommended to reduce filter replacement frequency
- Clean waste metals in table bottom pan as required



pH Maintenance

- Use regular pH strips—make sure they are not past the expiry date
- Check pH 1x or 2x per week to make sure it is between 9 - 10
- Adjust pH to 9 – 10 with fresh GreenCut Plasma
  Water will evaporate quickly from your table; keep adding water to keep appropriate level; add GreenCut Plasma when pH below 9

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

Waste Water Disposal

If below followed, no water disposal required for at least 10 years

1 **CNC Plasma Cutting System with Water Table** + 2 **GreenCut Plasma** + 3 **Circulation** + 4 **Filtration** + 5 **pH Maintenance** = **NO Waste Water Disposal**

If water disposal required, water can go directly to the sewer after filtration and oil removal

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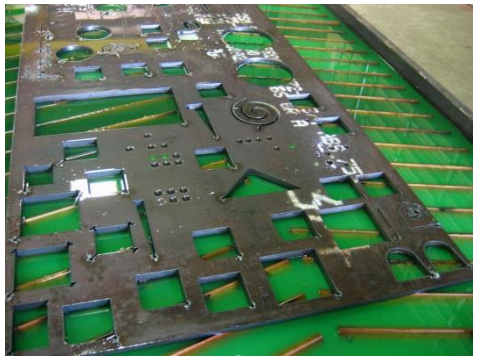
GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

1. What is GreenCut Plasma?

- fluid for treatment of water in CNC plasma water tables.
- prevents hot-spotting, corrosion, bacteria and foaming.



2. **How long has GreenCut Plasma been on the market?**

Since 2005.

3. In how many tables can GreenCut plasma be found?

Around 2,000 tables and growing fast
Sizes from 2ft x 2ft hobby CNC plasma tables to 60,000 gallon industrial CNC plasma tables.

4. How different is GreenCut Plasma from plasma quenches?

Very different!

- does not contain any toxic chemicals and is entirely safe. It does not contain any nitrites (toxic), biocides (formaldehyde =carcinogenic). GreenCut is Reusable.

5. How is GreenCut Plasma mixed?

- Mixed with tap water @ 20:1 ratio.

GreenCut® Plasma

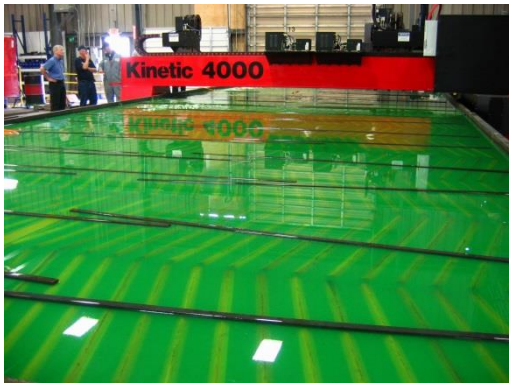
CNC Plasma Arc Water-Table Fluid

FAQs

6. How much GreenCut Plasma do I need for my table?

Use the following calculation:

Cutting table dimensions (L, W, H in feet); results in US gallons



L x W x H x 0.375 = volume of GreenCut Plasma needed in US gallons

Note: 1 cubic foot = 7.5 US gallons and 20:1 dilution afford 0.375 factor

Example:
Table size: L = 30ft, W = 13ft, H = 1.5ft
30 x 13 x 1.5 x 0.375 = **220 gallons** of GreenCut Plasma needed for this 4,388 gallon table

GreenCut Plasma is sold in
pail (20L) – 5 gallons
drum (205L) – 54 gallons
tote (1,000L) – 264 gallons

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

7. How good is GreenCut Plasma at preventing corrosion?

Excellent!

- contains superb anti-rust chemicals. These chemicals coat any metal they come into contact with. Rust will develop when GreenCut Plasma is diluted down to 50:1.

8. Does GreenCut Plasma prevent bacterial growth and odours?

Yes!

- Use without biocides.
- biodegrades oils coming from the cut metal on which bacteria feed and grow. This is done on contact of GreenCut Plasma with oil. In order to assure this contact, circulation of the tank liquid is required.

9. What do I need circulation for?

- to assure even and continuous coating with anti-rust chemicals
- to prevent bacterial growth by biodegrading oils on contact.
- to prevent hot-spotting caused by plasma arc torch(s) operating to 25,000°F.

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

10. How do I circulate my table?

- Use a pump of appropriate size. For smaller tables, a fractional horse-power pump is sufficient.
- Use one inlet in the upper portion of the table close to the fluid surface to prevent circulating the metal crud and use several outlets (3-4) closer to the bottom pan of the table at the opposite end.

If table used less frequently (1-2x/week) circulate the table every 3 days for 1 hour or so.

11. Does GreenCut Plasma evaporate?

No!

- Water in the table does evaporate and needs to be added.
- GreenCut Plasma does not thermally degrade and does not cause harmful vapours. When adding water, make sure to maintain 20:1 ratio in the coolant tank.

12. How long does GreenCut Plasma last?

- In own packaging - unlimited shelf life.
- In the table - consumed by coating the metal (table and cut metal) and therefore fresh GreenCut Plasma needs to be added occasionally.

Adhering to proper maintenance, GreenCut Plasma does not have to be replaced for at least 3 years.

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

13. How do I maintain GreenCut Plasma?

See Maintenance Notes on Slides 26, 27, 28, and 6

14. How do I dispose of GreenCut Plasma?

- safe, non-toxic
- can go directly into the sewer providing the metal shavings have been filtered out and no oil is visibly floating on top of the fluid.
- GreenCut Plasma biodegrades up to 5% of the oil on contact and there should be no oil present.
- LubeCorp`s customers have received direct sewer disposal approvals from authorities in different jurisdictions across the North America.

15. Do I submerge the cut metal or not?

Yes!

- submerging the metal plate partially into the water reduces dross and prevents smoke.
- This is counterintuitive to recommendations by some table manufacturers. Leaving an air gap between the metal plate and water defies the purpose of the water, which is to catch the smoke and provide plate cooling.

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GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

16. Will submerging of the metal plate cause its corrosion?

No!

- GreenCut Plasma coats the metal plate as well and protects it from corroding. This thin layer does not leave marks and can be rinsed off easily with water. After drying, the metal part can be painted or powdercoated.

Watch @ 2:40 min

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GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

17. What about Aluminum and explosions?

- Cutting aluminum can cause an explosion due to accumulation of hydrogen gas in water pockets.

Solution

- table circulation – releases hydrogen into the air preventing accumulation
- elimination of air gap by submerging metal plate – prevents accumulation

Super-heated steam – accumulated in the air gap – safety hazard

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

18. Can GreenCut Plasma be winterized?

Yes!

- Freezing of the water in winter months can occur in outside tables.
- GreenCut Plasma mixed with a water/propylene glycol mixture instead of water; still 20:1.

<u>Propylene Glycol Mixture recommendation for freeze-up prevention.</u>

1. At -5°C (23°F) freeze point add 15% propylene glycol to 85% water to give freeze protection. Mix with GreenCut @ 20:1

2. At -10°C (15°F) freeze point add 25% propylene glycol to 75% water to give freeze protection. Mix with GreenCUt @ 20:1

3. At -20°C (-4°F) freeze point add 35% propylene glycol to 65% water to give freeze protection. Mix with GreenCUt @ 20:1

4. At -35°C(-30°F) freeze point add 50% propylene glycol to 50% water to give freeze protection. Mix with GreenCut @ 20:1

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

19. Can parts be welded?

Yes!

- Wash the part with pressurized water and dry prior to welding.

20. Can GreenCut be used in waterjets?

Yes!

- Test have shown GreenCut prevents bacteria more effectively than bleach, biocides and pool chemicals in waterjets. Use GreenCut only in recirculating systems to save money.

Waterjets run at 40,000 to 90,000 psi – this causes foaming. Additional anti-foam is required

GreenCut® Plasma

CNC Plasma Arc Water-Table Fluid

FAQs

21. Does GreenCut Plasma lubricate/cool tools?

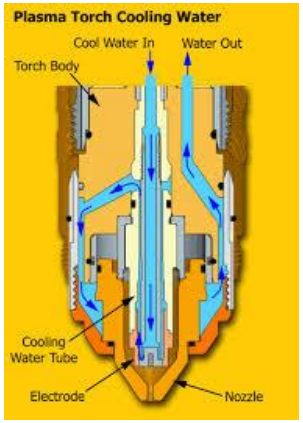
Yes!

- GreenCut Plasma at the same time serves as a coolant/lubricant for tools installed on the table.
- No additional coolants/metalworking fluids are required.

22. Can GreenCut Plasma cool plasma torch?

Yes!

- GreenCut Plasma can be used for cooling of the plasma torch.



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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Developed and manufactured by LubeCorp Manufacturing Inc. exclusively

On the market for 16 years

Applications

- Machining
- Cutting
- Grinding
- Drilling
- Tapping
- Sawing
- CNC Plasma Arc Cutting – Water Table Treatment
- CNC Waterjets – Water Treatment

GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

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
- Superb surface finish
- Contains superb anti-rust and anti-foam additives
- Prevents bacteria

GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

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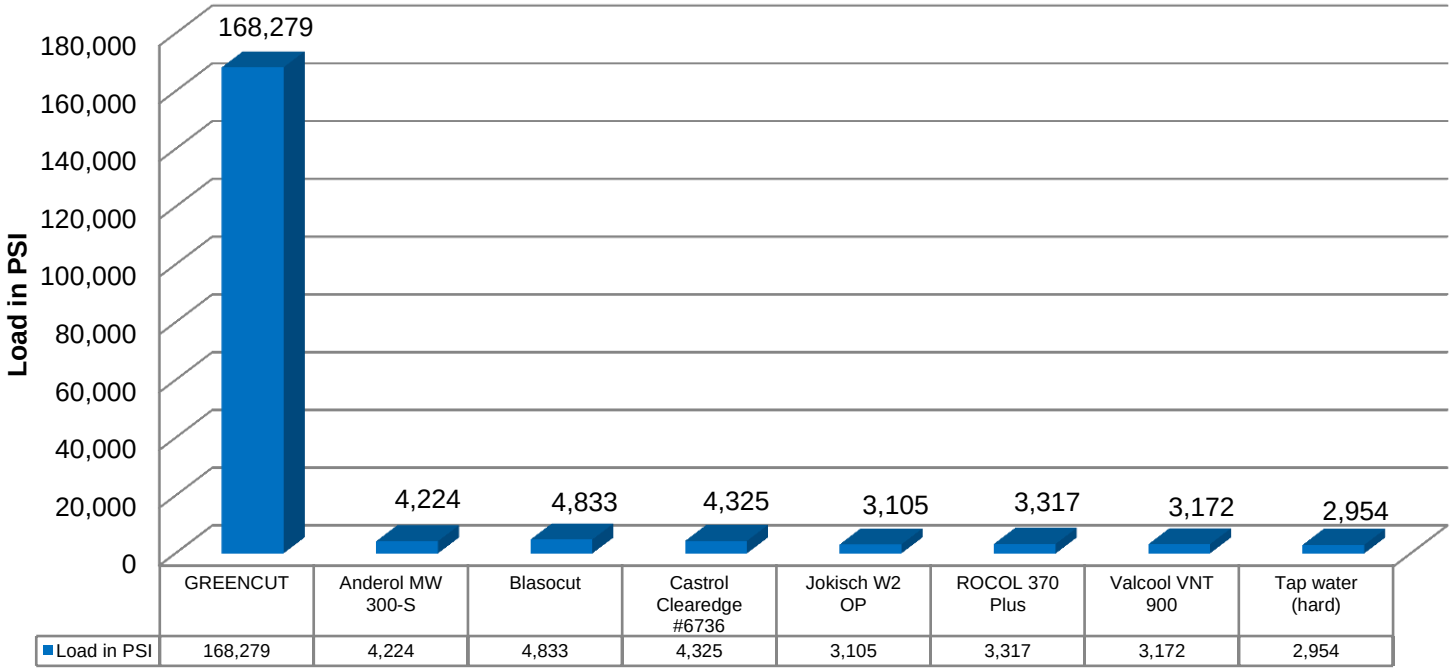
COMPARATIVE CUTTING-FLUID LOAD/SHEAR-TESTS in Pounds per Square Inch



GreenCut®
People-SAFE Coolant with Peak-Performance

www.lubecorp.com 1-800-661-6100

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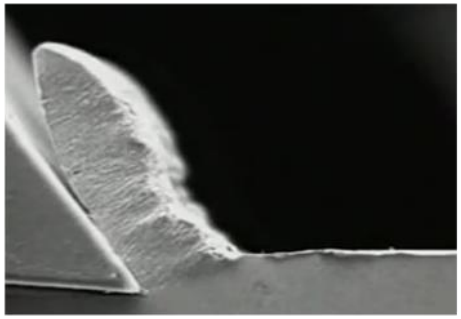
GreenCut® Cutting/Misting Fluid

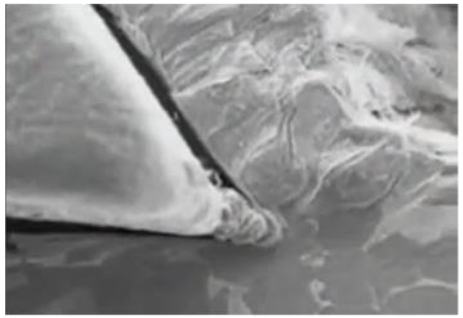
High Performance Cutting/Misting Fluid

How it Works

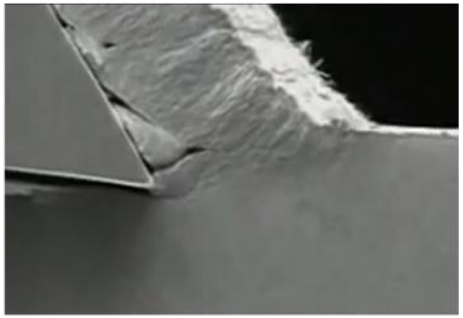
- GreenCut has full access to the seizure zones on the tool rake-face due to its small molecular structure
- Friction plane heat radically reduced
- Results in superb surface finish



GreenCut prevents metal-to-metal contact due to its tiny 1 micron size sliding between the cutting tool and the work piece, and staying there - preventing contact



GreenCut prevents formation of the **Built-up Edge**



GreenCut prevents welding of the metal to the tool face under high pressure and heat typically leading to poor finish and tool damage

Materials

Carbon Steel, stainless steel, brass, Inconel, titanium, aluminum, copper, diamonds, glass, plastic, stone

GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Cleaning & Compatibility

- 100% water-soluble, mixed with water at 20:1 ratio
- Fully compatible with downstream processes – cut metal can be painted, powder-coated without additional cleaning/treatment required

  Tested by:
  - CAPTIN (Toyota, Delta BC)
  - Tiercon (Tier1 automotive supplier) – tests show

1. GreenCut at 20:1 – no problems. GreenCut could be washed away with their Eco wash system after several days and parts could be painted.
2. GreenCut at 10:1 – if parts washed away right away, no problem. If parts were left sitting for 3-4 days/weekend, GreenCut was not washed off sufficiently by the Eco wash process to paint the parts properly.

- No sump clean-outs needed for at least one year with proper maintenance
- Easy to maintain – check with pH strips
- Can be reused

GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Compatibility - Continued

- Compatible with paint – compatible, prevents further corrosion

  However: GreenCut will, over time, in an enclosed environment like the painted inside of a CNC machine, slowly remove the paint on the splash cover due to GreenCut's molecular attraction to any metal.

- Galvanized metal – compatible, no issues; recommended washing of cut parts with water prior to further treatment

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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

GreenCut Challenge 20151006

! Double-Click the video

Safety

Originally Approved by:
Environment Canada
under the Environmental Choice Program

- TRGS 611 compliant; does not contain any oils, toxic chemicals, biocides
- German Water Hazard Regulation: Non-Hazardous to Water, VwVwS = nwg
- Totally prevents growth of aerobic and anaerobic bacteria without using biocides
- Eliminates sump odours permanently: immediate biodegradation of up to 5% of oil wastes (tramp oils) means no stench and extended service life
- Direct sewer disposal ready
- Easy on the hands and helps heal lacerations and dermatitis. Mist won`t cause asthma or breathing problems
- Spills are safe to walk on – does not cause slippery surfaces

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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Chemical Safety

- does not contain any oils, toxic chemicals, biocides
- Contains boron-based chemistry, but not boric acid (classified as reprotoxic)

Figure 1. ^{11}B NMR - boric acid in water/propylene glycol solution

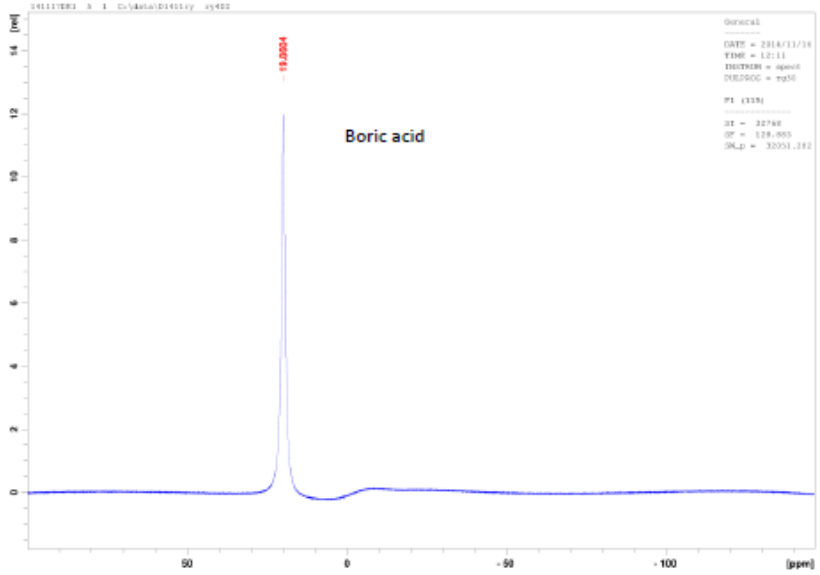
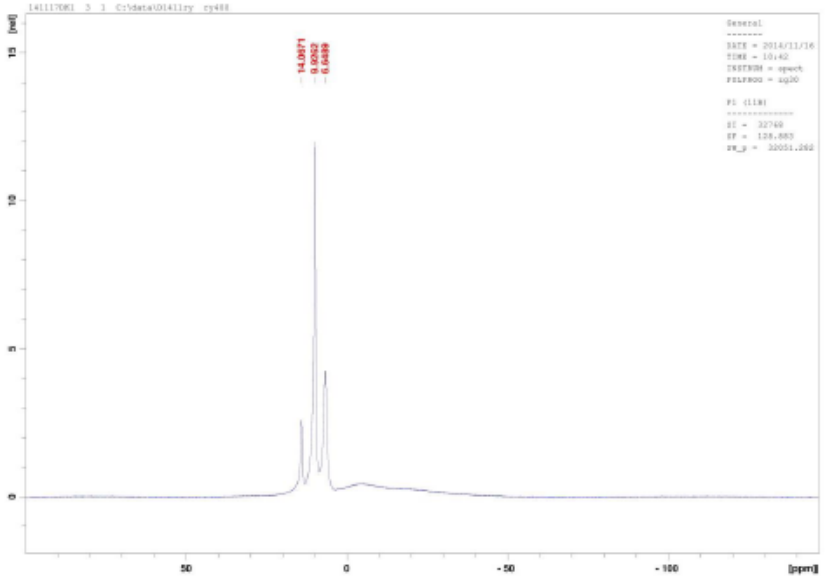


Figure 2. ^{11}B NMR – GreenCut Cutting/Misting Fluid - neat



^{11}B NMR, Bruker Avance 400 MHz NMR; 1,000 scans, $BF_3(Et_2O)$ in C_6D_6 as reference standard.

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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Biocides/Formaldehyde

- Biocides – commonly used formaldehyde-releasing agents
- Formaldehyde – carcinogenic
- Not found in GreenCut

Nitrites

- Commonly used for corrosion protection – toxic
- Not found in GreenCut

Secondary amines

- Commonly used for corrosion protection; in the presence of nitrites form nitrosamines – carcinogenic
- Not found in GreenCut

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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Sulfur, phosphorus-based chemicals

- Commonly used for lubricity
- Toxic
- Not found in GreenCut

Vegetable Oils

- Commonly used as oil base substitute to make metalworking fluid “green”
- Spills are reportable with costly clean-ups
- Not found in GreenCut

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GreenCut® Cutting/Misting Fluid

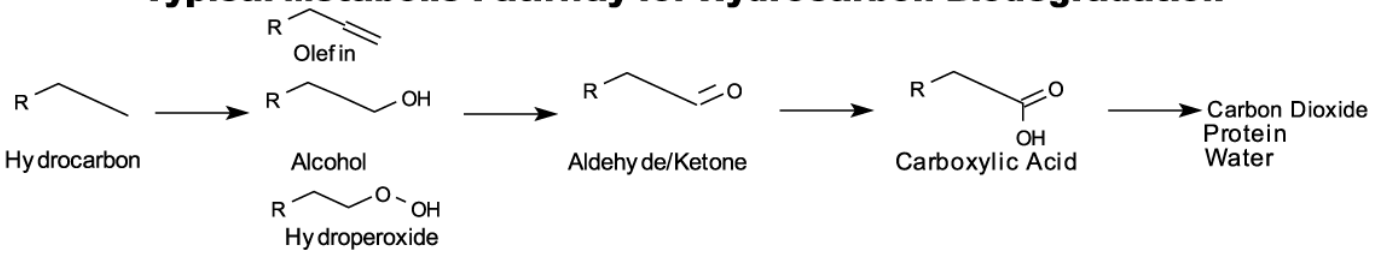
High Performance Cutting/Misting Fluid

Biodegradation of all oils/hydrocarbons

- Totally prevents growth of aerobic and anaerobic bacteria
- Eliminates sump odours permanently: immediate biodegradation of up to 5% of oil wastes (tramp oils) means no stench and extended service life

- Hydrocarbon biodegradation enables the conversion to carboxylic acids that biodegrade to a harmless reduction of carbon dioxide, water, and a tiny amount of cell biomass –mostly innocuous protein.

Typical Metabolic Pathway for Hydrocarbon Biodegradation



Major Metabolic Pathways for Biodegradation of: Hydrocarbons, Sewage, Manure, Agricultural and Food Processing Waste.

The initial steps in the biodegradation of hydrocarbons and organic waste by bacteria and fungi[4] involve the oxidation of the substrate by oxygenases[2], for which molecular oxygen O_2 is required. (O_2 is dissolved air in the liquid solution. The substrate being hydrocarbons, sewage, manure, cellulose wastes, etc.)

GreenCut® Fluid enables the combination of oxygen O_2 at the molecular level with the substrate, triggering the subsequent conversion of hydrocarbons, sewage, manure, cellulose wastes, oils, fats, etc., to carboxylic acids that are further biodegraded via ß-oxidation[3] to a harmless reduction of carbon dioxide, water, and a tiny amount of cell biomass (protein) and can be safely assimilated into the food chain.

NOTES:

[1]Biological enzymes are catalysts which act in a narrow operating range of temperature and pH. When these enzymes catalyze a redox reaction they are classified as oxygenases[2].

[2]Oxygenases: Enzymes that oxidize a substrate by transferring the oxygen from molecular oxygen O_2 to the substrate, that catalyze reactions in which O_2 is introduced into an acceptor molecule.

[3]ß-oxidation is the central metabolic pathway for the utilization of fatty acids from lipids in which two-carbon units are sequentially removed from the molecule with each turn of the cycle, resulting in the formation of acetate which enters the tricarboxylic acid cycle by which alkanes, oils, fats, hydrocarbons, and other wastes are broken down and metabolized so that they can be used as a source of energy in aerobic respiration.
(Aromatic hydrocarbon rings generally are hydroxylated to form diols; the rings are then cleaved with the formation of catechols which are subsequently degraded to intermediates of the tricarboxylic acid cycle.)

[4]Fungi and bacteria form intermediates with differing stereochemistries. Fungi, like mammalian enzyme systems, form *trans*-diols, whereas bacteria almost always form *cis*-diols (many *trans*-diols are potent carcinogens whereas *cis*-diols are not biologically active). Since bacteria are the dominant hydrocarbon degraders, the biodegradation of aromatic hydrocarbons results in detoxification and does not produce potential carcinogens.

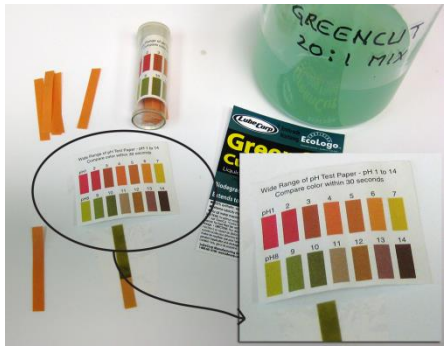
GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Maintenance

- **GreenCut is not an oil -** It works better but needs monitoring
- Monitoring simpler than most metalworking fluids on the market
- Monitoring achieved with pH strips, no refractometers required

Weekly Coolant Maintenance



Check the pH of the bath using pH test paper strips for color match. **pH** should be between 9 and 10 for max. performance.

If the sample is not up to the **pH** reading add straight GreenCut, blend into the bath until the **pH** matches to pH zone.

'Standard' Coolant color sample test: Mix water and GreenCut in a clear bottle at 20:1 ratio. Use this color sample to visually measure the mix ratio in the bath.

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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Disposal & Waste Management

- GreenCut is non-toxic – can go directly into sewer after:
  - Metal shavings and crud filtered out
  - No oil visibly floating on top of the fluid – use skimmers
- Use 3 – 5 micron filter for filtration
- Avoid disposal entirely by proper filtration and maintenance

GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Reported Issues

Corrosion

- Occurs when GreenCut diluted beyond 50:1
- Manifested as pH drop below 9

Solution

- pH monitoring crucial – keep pH 9 - 10
- Reported corrosion on equipment – recommended wiping down the equipment with oily rag at the end of the week as part of standard maintenance

GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Reported Issues

Foaming

- Occurs in:
  - High pressure applications (>500 psi; >3.4 Mpa)
  - In soft water, distilled water

Solution

- Add anti-foam (4,000:1 ratio) – 5 mL of antifoam into 20 L pail
- Mix antifoam into a coolant in a separate pail until anti-foam gets absorbed
- Add the pail back into coolant reservoir
- Do not add anti-foam directly into coolant reservoir – it tends to cause mixing problems, especially if there is free oil causing clotting

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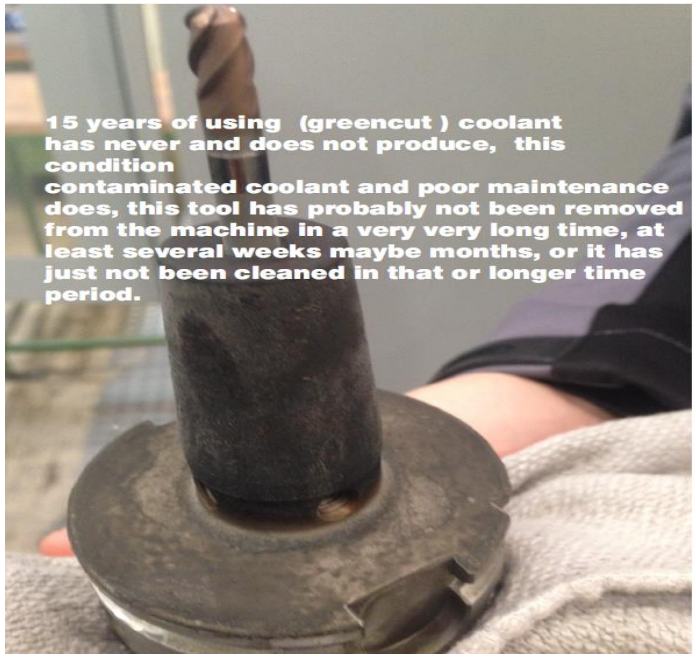
GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Reported Issues

Sticky Residue

- Can occur when water evaporates – very rare
- Easily cleaned with wet rag



GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Reported Issues

Aluminum

- Fine tapping and drilling of soft metals can pose problem 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)
- Check aluminum hardness if correctly pre-treated

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

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GreenCut Cutting Fluid Significant Clients

- BC Ferries – Vancouver, BC
- BAI Aero Systems, Easton, MD USA (manufacturers of Drone airplanes for USA Air force)
- Coast Mountain Bus Company – Vancouver, BC (Vancouver Transit)
- District of Rockyview – Calgary, AB (Local government)
- Enerflow Industries Inc. – Calgary, AB (Global oilfield equipment manufacturer)
- Exchanger Industries – Calgary, AB (One of the largest manufacturers of heat exchangers in Canada)
- Farley Laserlab USA – Chicago (One of the oldest builders of plasma and laser systems in the world, originally Melbourne, Australia)
- Field Aviation – Calgary, AB (Modifiers of aircraft)
- Fleet Maintenance Facility Cape Scott – Halifax, NS (Canadian Navy)
- Helmer Inc. Noblesville, IN USA (Manufacturers of medical and laboratory equipment)
- Hirschfeld Steel – Greensboro, NC and SanAngelo, TX USA (Major steel structure manufacturers)
- Kinetic Cutting Systems – New Zealand (OEM manufacturing plasma arc cutting machines)
- Kodak Canada – used for optical lens manufacturing

Undergoing tests with Boeing and Moog

- Lafarge Construction Materials – Calgary (The largest diversified supplier of construction materials in the U.S. and Canada)
- Naval Surface Warfare Centre – Dahlgren, VA, USA (US Navy)
- Propak Systems – Airdrie, AB (one of the largest engineering and fabrication businesses in Canada specializing in the oil&gas industry)
- Prudential Steel Ltd. (division of Tenaris) – Calgary, AB (Steel pipe manufacturer)
- Rapid Span Structures Ltd. – Armstrong, BC (Large bridge manufactures)
- Sanjel Canada – Calgary, AB (global energy service company specializing in pressure pumping and completions)
- Universal Steel America, Inc. – Houston, TX (leading North American specialty steel plate processing service center)
- Varsteel ltd. – Lethbridge, AB (leading provider of steel, rebar, pipe and piling and structural steel in Canada and the United States)
- Waukesha Electric – Goldsboro, NC (One of the largest US manufacturers of medium and large power transformers)
- WF Welding and Overhead Cranes – Edmonton, AB (Crane and equipment manufacturers)
- TOYOTA, Canadian Autoparts Toyota Inc.(CAPTIN) – Vancouver, BC

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GreenCut® Cutting/Misting Fluid

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Testimonials

Bandsaws – ALCOA

We are currently using the GreenCut coolant/lubricant in an Accu-Lube mist applicator system. Basically fluid with atomizing air pressure forced through a coolant jet. The equipment is a B&O saw with a 30” diameter 60 tooth blade with a .237 kerf. This machine is used to cut from .250” to 7” thick material.

Benefits we are seeing;

- No oily residue on the equipment or product (much easier clean up and less exposure to the operators)
- No side effects from oil based lube (No smell, smoke or slippery floor conditions in the saw area)
- Roughly a 30% increase in blade life over the previous product.
- Environmentally friendly and the operators love it.
- This product is currently being mixed @ a 20 to 1 ratio versus the old coolant being 100% pure. There will be DI savings associated with this product when we fully understand all of the benefits throughout the plant.

Duane Bushong
Operations Process Coordinator
ALCOA Plate Facility

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GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Testimonials

Stamping

- Just ran 24000 aluminum tags with the 20:1 mix and last tag looks as good as the first and cleanup was a breeze. It's good stuff.

- Since we talked I have used your product on all the punching jobs I have done and can say it is entirely suitable for that application in both alum and stainless steel. I am mixing it 1:20 with tap water, applying with the small spray mister that you saw when you were here. Clean up is a breeze on both large parts (wipe off) and our tag products (vibratory finisher). It will be our go to product from here on for punching applications.

Maurice Chalmers, Owner

BASIC Tool & Die Inc.

GreenCut® Cutting/Misting Fluid

High Performance Cutting/Misting Fluid

Testimonials

CANADIAN AUTOPARTS TOYOTA INC.
7233 Progress Way, Delta, B.C. V4G 1E7 Phone: 604-946-5836 Fax: 604-946-1730

Mr. Chris Richardson.

Chris, I wanted to give you an update on testing Lubecorp Greencut Cutting Fluid in our Trial Line and in **Saw Blade Application finishing Aluminum Wheels for Toyota.**

Lubecorp's Greencut quickly made our working areas more comfortable for our Team Members, eliminating bacteria related odours and irritating lung and nasal complaints. Our Team Members have noticed that direct skin contact with Greencut is of no concern. We feel Greencut has been keeping the skin on our hands healthier.
Also, they determined that we are getting better tool life by at least 25% and we have noticed that there is potential for a more enhanced and higher quality surface finish.
After 15 months of running Greencut on line we do not see a need to clean the sump, and in fact we have noticed that the way oil that normally accumulates across the surface of traditional coolant tanks seems to disappear, leaving only a small amount on the surface.
From the first day Team Members have commented on how "Lemony Fresh" their work area has become and is still "Lemony Fresh" today all these months later.

Henkle has tested and confirmed that Greencut is compatible with our Paint line and pretreatment chemicals. We will be conducting a third test in our No Mask Line location in the coming weeks and are expecting excellent results as well.
Thank you Chris for working with us over the last couple of years to help resolve our many coolant related issues. Your time and efforts are greatly appreciated.
Sincerely,

David B. Johnston

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