



VCI METALWORKING PRODUCTS

EcoLine™ Cutting Fluid



PRODUCT DESCRIPTION

EcoLine™ Cutting Fluid is a multifunctional biodegradable concentrate for metal cutting operations. This liquid cools the work pieces and tools, prevents welding of metals during the metalworking process and provides excellent corrosion protection and lubrication during the cutting process.

High-performance characteristics make EcoLine™ Cutting Fluid ideally suited for heavy-duty cutting, milling, turning, drilling, broaching and other machining operations.

When added to water in the ratio of 1:40 to 1:20, EcoLine™ Cutting Fluid gives a stable emulsion which provides excellent cooling and little or no smoke during use. This concentrated fluid can be used in small amounts providing cost savings. When used as directed, EcoLine™ Cutting Fluid prevents corrosion during in-plant processing, storage and export shipment for up to 12 months.

FEATURES

- Environmentally friendly and biodegradable
- Replaces hazardous mineral oil
- Excellent for operations which require rapid cooling
- Contains no chlorinated compounds, chromates or nitrites
- Low to no smoke or burning vapors
- Excellent anti-wear properties
- Excellent lubricity
- Excellent extreme pressure properties
- Cleans parts by removing rust and oil
- Provides excellent corrosion protection
- Displaces water and oil from metal surfaces
- Economical - can be diluted 1:40 with water

APPLICATION

Add EcoLine™ Cutting Fluid to water using a high dispersion-mixing blade. Mix for 5-10 minutes. The emulsion should remain stable indefinitely. In case of separation, emulsion can be remixed.

TYPICAL APPLICATIONS

- Lubricant for heavy-duty rolling, grinding, extruding, stamping and cutting
- In-plant machining
- Biodegradable preservative for hot-rolled, cold-rolled, galvanized and aluminized steel during operation, storage and shipment
- Hydrostatic testing
- Machining coolant

TYPICAL PROPERTIES

Appearance	Clear amber liquid
Non-volatile Content	89-93%
pH	8.5-9.0 (1% aqueous)
Density	7.7-7.8 lb/gal (0.92-0.93 kg/l)

TEST RESULTS

ASTM D 1748 (Humidity Chamber)
 Pass 220 hours (for 2.5% solution)
 Pass 800 hours (for 5% solution)

ASTM D 4627-86 (Cast Iron Chip Test)
 Pass (1% solution)

ASTM D 2670 (Falex Pin and VEE Block Wear Test)
Conditions:

Run in/5 min.	350 lb (159 kg)
Gage load/15 min.	900 lb (408 kg)

Results:

Total Teeth Wear	17 (2.5% solution) 10 (5% solution)
Seizure (Yes/No)	No (2.5% solution) No (5% solution)



Tapping Torque Test	
Specimen Type	1215 steel
Speed (high speed taps)	400 rpm
Conventional Cutting Fluid	6.257 (2.5%)
	6.195 (5%)
EcoLine™ Cutting Fluid	5.962 (2.5%)
	5.814 (5)

STORAGE AND PACKAGING

EcoLine™ Cutting Fluid is packaged in 16 oz. (455 ml) ready-to-use, 5 gallon (19 liter) pails concentrate, 55 gallon (208 liter) drums concentrate, liquid totes and bulk. The product should be stored sealed in the warehouse to avoid freezing. Agitate before each use. The shelf life of EcoLine™ Cutting Fluid is up to 24 months.

Note: Please see the Material Safety Data Sheet (MSDS) for proper handling of the product.

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION
CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.



4119 White Bear Parkway, St. Paul, MN 55110 USA
 Phone (651) 429-1100, Fax (651) 429-1122
 Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com
 Internet <http://www.cortecvci.com>

Distributed by:



OTiK Sp. z o.o.
 ul. Hutnicza 4
 81-061 Gdynia
 tel.: 58 6230498
 fax: 58 6230496
otik@use.pl
www.inhibitory.use.pl

printed on recycled paper 10% post consumer

Revised 3/22/01. Cortec Corporation 2001. All rights reserved. Supersedes: 12/20/00.



Certificate No. 70711