

THE COOLER™

GENERAL PURPOSE SYNTHETIC CUTTING FLUID

PRODUCT DESCRIPTION:

THE COOLER is a general purpose multi-duty synthetic chemical coolant for use on cast iron, ductile iron and most other metals.

CLEAR:

THE COOLER is a clear blue concentrate and forms a water-clear solution for excellent visibility of the work piece which is particularly important in certain grinding operations.

COMPLETELY WATER RESOLUBLE RESIDUE:

THE COOLER leaves a completely water-resoluble rust-preventative film on machine and parts. No gummy, sticky, tacky residue to tie up machine, which creates excessive maintenance costs and also will contribute to excessive bacterial growth.

SUPERIOR WETTING AND DETERGENCY:

The high wetting and controlled foam characteristics of THE COOLER provides for quick penetration to the point of cut for a clean, smoke-free operation and rapid heat dissipation.

EXCELLENT RANCIDITY CONTROL:

Formulated with high-quality raw materials, THE COOLER is exceptionally resistant to bacterial and fungal growth in the machine, which is a primary problem in the coolant industry today.

REJECTS TRAMP OIL:

Formulated with a unique blend of wetting agents, THE COOLER rejects tramp oil emulsification providing for easy removal of this contaminant through skimming, centrifugation, or other appropriate means.

NON-CORROSIVE & NON-STAINING:

THE COOLER contains unique corrosion inhibitors providing corrosion and stain protection on cast iron, steel, aluminum, brass, copper and most modern alloys.

SAFE:

THE COOLER does not contain any phenols, creosols, nitrates, nitrites, harsh alkalies, phosphates, or any heavy metals. Operator acceptance and satisfaction play a big role in coolant performance so THE COOLER was formulated with the operator in mind.

CASE HISTORIES:

Company: Large tool and die shop

Machine: Large Schaudt OD grinder

Metal: Hard stainless steel

Operation: Grinding the outside diameter of a large stainless steel part for aircraft landing gear.

Results: With a competitive coolant they were getting 2 to 3 parts per wheel dress. Upon installing THE COOLER in this grinder the wheel dressing cycle increased to 5 to 6 parts per dress, in effect doubling the wheel life.

Company: Large air conditioner manufacturer

Machine: Frezaki boring mill

Metal: Tool steel

Operation: Milling and boring

Results: Before changing to THE COOLER the coolant had to be pumped out frequently due to rancidity. After the machine was cleaned and charged with THE COOLER it has not been changed in 3 months.

As well as being an excellent cutting and grinding fluid, THE COOLER has many other uses in a manufacturing shop. For example, on some multi-station machines which perform many operations, the diluted coolant may not have enough extreme pressure properties for certain operations such as tapping or drilling. Many plants will brush or squirt on a straight sulfurized cutting oil directly on the tool for extra lubricity. This sulfurized cutting oil then contaminates the coolant, causing numerous problems. By replacing this cutting oil with THE COOLER concentrate, you receive the added lubricity required without the contamination of the active sulfurized cutting oil in the coolant. As the concentrate of THE COOLER falls into the sump, it becomes incorporated into the coolant and acts as makeup, thereby not only eliminating the contamination, but reducing the amount of concentrate required in the makeup barrel. This saves the customer money and problems due to the contamination of the sulfurized cutting oil. In many operations after the parts have been machined or ground they are then dipped into a short-term, corrosion protective compound to prevent rusting while the parts sit waiting to be cleaned, painted, plated, or to go to another operation. Many times this corrosion protective dip is not compatible with the coolant in the next operation, and, therefore, acts as a contaminant. Replacing this rust-inhibitor dip with a rich solution of THE COOLER provides the short-term rust protection the customer desires as well as eliminates the possible contamination of the coolant in the next operation. This saves the customer money and problems and also extends the use of THE COOLER in a customer's shop.

CAUTION: When starting a trial in a prospective customer's plant, the customer may ask you to use THE COOLER as makeup for the coolant he presently is using in his machines. He will try to do this to save the time and effort it takes to pump out, clean, and recharge this machine with the fresh solution of THE COOLER. By doing this, you not only inherit the problems he is presently having with the coolant he is now using, but run the risk of the 2 coolants being chemically incompatible and thereby shutting his operation down completely. It is strongly advised that in any installation the machine be pumped out, thoroughly cleaned with Spartan's The Cleaner and recharged with a fresh solution of THE COOLER. This gives you the best chance of a successful trial in this plant and a satisfied customer.

DIRECTIONS FOR USE:

A concentrate designed to be diluted with water, THE COOLER forms a clear solution in a wide range of water temperatures and hardness.

1. To insure a uniform solution, mix THE COOLER with water at appropriate concentrations in a separate container. (Refer to Recommended Starting Concentration Chart.)
2. Agitate solution until thoroughly mixed.
3. Add the mixed coolant to the cleaned sump.
4. **Makeup:** When adding makeup to the machine, add THE COOLER at 2 to b the concentration desired in the machine. For example, startup of 10:1 requires 20:1 makeup. Always add diluted solution as makeup; never plain water.

NOTE: TO PREVENT ANY WHITE DISCOLORATION WHEN USING THE COOLER ON GALVANIZED PARTS, BE SURE CONCENTRATION IS 20:1 OR STRONGER.

RECOMMENDED STARTING CONCENTRATION (parts water to parts The Cooler)

	Gray Cast Iron	Ductile Iron	Brass Alloys	Mild Steel	Stainless Steel	Aluminum Alloys	Copper Alloys
GENERAL TURNING	25-1	20-1	20-1	20-1	15 to 20-1	20-1	20-1
BORING	15-1	15-1	20-1	20-1	15-1	15-1	15-1
PLANING SPOT FACING	20-1	20-1	20-1	20-1	15-1	15-1	15-1
GENERAL MILLING	20 to 25-1	20-1	20-1	20-1	15 to 20-1	20-1	20-1
GENERAL DRILLING	10 to 15-1	10-1	10-1	10-1	10-1	10-1	10-1
TAPPING/REAMING	10-1	10-1	10-1	10-1	10-1	10-1	10-1
GEAR CUTTING HOBBING	10-1	10-1	10-1	10-1	10-1	10-1	10-1
SAWING	20-1	15-1	10-1	10-1	10-1	15-1	15-1

To determine the amount of concentrate required to charge a machine use the following formulation to determine the total gallons in the machine sump:

$\frac{(\text{Length} \times \text{Width} \times \text{Height (in inches)})}{231} = \text{Total Sump Capacity in Gallons}$
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THE COOLER DILUTION RATIO VS. REFRACTIVE INDEX*	
DILUTION RATIO	REFRACTIVE INDEX
5-1	7.2
10-1	3.6
15-1	2.7
20-1	1.8
25-1	1.4
30-1	1.2
35-1	1.1
40-1	0.9
50-1	0.7
*American Instrument Model 10440 Industrial Fluid Tester	

PACKAGING:

THE COOLER is available in tankwagons; 330-gallon disposable totes; 275-gallon, DOT-approved totes; recyclable HDPE (High Density Polyethylene) 55-gallon drums and 5-gallon pails. Label copy is available in both English and Spanish.

Be sure to read all Directions, Precautionary and First Aid Statements on product labels before use of this or any IPG/Spartan product. Material Safety Data Sheets for all IPG/Spartan products are available from your authorized IPG/Spartan distributor.

GUARANTEE:

Spartan's modern manufacturing and laboratory control insure uniform quality. If dissatisfied with performance of product, any unused portion may be returned for credit within one year of the date of manufacture.