QUESTIONS & ANSWERS

ABOUT

CANTESCO®

COOLING FLUIDS

IN

WELDING APPLICATIONS

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WELDING PRODUCTS DIVISION
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WHAT ARE CANTESCO® COOLING FLUIDS?

CANTESCO® cooling fluids are glycol-based solutions (either ethylene glycol or propylene glycol depending on the application), used for welding coolant systems.

HOW ARE THESE PRODUCTS MANUFACTURED?

All CANTESCO® cooling fluid formulations contain water which has been di-ionized and charcoal carbon filtered (to ASTM and ASME SECTION V nuclear standards) for purity. Ordinary untreated tap water may contain varying amounts of minerals and other chemicals which can contribute to system corrosion, the build up of scale and/or conductivity in the system.

The glycols we use are of high quality and are filtered prior to use in the formulations. In addition the propylene glycol we specify is a USO grade material of the highest quality.

CAN CANTESCO® COOLING FLUIDS BE DILUTED?

No, all CANTESCO® cooling fluids are formulated to be used as is. These products are prepared using specially treated and filtered water and may also contain inhibitors for corrosion and/or bacterial inhibition depending on the cooling fluid formulation and intended application.

By diluting these products both the original stated temperature range and the product purity become affected and may lead to system failure. Any cost savings achieved through dilution will be lost in pump and/or system part(s) replacement.

PRIMARY APPLICATIONS FOR CANTESCO® GLYCOL BASED COOLING FLUIDS

CANTESCO® cooling fluids can be used in Plasma, MIG, TIG and resistance welding applications. These solutions can be used in both warm and cold weather applications.

THE BENEFITS OF USING AN ETHYLENE GLYCOL BASED COOLING FLUID

Lower amounts of ethylene glycol are required for equivalent temperature ranges (in freezing applications) compared to propylene glycol, meaning cost savings in ethylene glycol-based formulations. In addition ethylene glycol as a raw material is lower in cost than propylene glycol resulting in further cost savings.

THE DRAWBACKS OF USING ETHYLENE GLYCOL BASED COOLING FLUIDS

Ethylene glycol is a hazardous product under OSHA and WHMIS legislation and is subject to hazardous labelling requirements for product labels, MSDS information and subsequent safe handling and disposal requirements.

This also means that any cooling machine which has ethylene glycol based cooling fluid contained within the machine, hoses, connectors, etc., needs to be properly labelled as containing a hazardous substance; OSHA and/or WHMIS labelling information would need to be applied to the outside of all equipment.

THE BENEFITS OF USING A PROPYLENE GLYCOL BASED COOLING FLUID

A key benefit of using propylene glycol-based product is that it is exempt from hazardous materials reporting requirements. For example CANTESCO® CFPG COOLING FLUID *is not considered a hazardous product under OSHA or WHMIS*. This reduces health and safety concerns with respect to using a hazardous product as defined under health and safety legislation.

WHAT ABOUT EQUIPMENT MANUFACTURER CLAIMS THAT ONLY THEIR PRODUCT CAN BE USED IN THEIR SYSTEM?

Most coolant systems are built from the same basic materials (plastic, stainless steel, brass, copper and/or aluminum components).

Of particular importance in cooling systems is the pump mechanism. Refer to the specific pump manufacturer for their recommendation for suitable materials that can be run through their pumps.

For example some pump manufacturers recommend that no additives of any kind be used while others recommend corrosion inhibitors that can be run safely through their pumps. In some instances the pump manufacturer's recommendations may run contrary to the cooling unit manufacturer.

CANTESCO® cooling fluids can be safely used based on the intended application (type of welding and operating temperature range) and not according to the manufacturer's insistence on using their own branded product.

WHY NOT USE A COMMERCIAL AUTOMOTIVE ANTIFREEZE COOLANT?

Commercial automotive antifreeze coolants may contain additives such as stop leak compounds that may impair or affect your system. CANTESCO® cooling fluids do not contain any additional or unnecessary additives that may harm your system.

In addition commercial antifreeze products may not be properly labelled for the workplace or have Material Safety Data Sheets available. MSDS's are available for all CANTESCO® products whether they are defined as hazardous materials or not.

COOLING FLUID DISPOSAL

Any glycol based cooling fluid should not be disposed of through the drain. All excess materials should be disposed of through a licensed disposal facility.

SHELF LIFE

The shelf life for CANTESCO® cooling fluids is a minimum of 36 months when kept in sealed containers and used as directed. Replace cooling fluids in use as per manufacturers' recommendations or when fluid is cloudy, discoloured or visibly contaminated.

ADDITIONAL INFORMATION

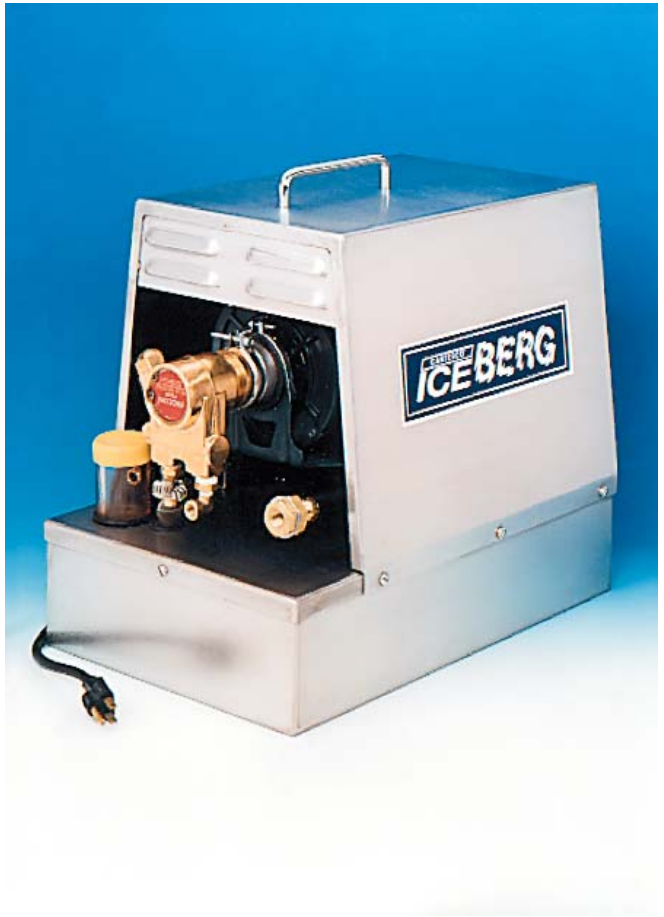
For additional information on each specific product request the TECHNICAL INFORMATION - TYPICAL ANALYSIS form for each material(s) you are considering using.

For health and safety information request the specific material safety data sheet for each product(s) you are considering using by emailing us at msds@cantesco.com.

PRODUCT SUPPORT

CANTESCO® cooling fluids are available from stock through welding distributors and wholesalers.

For technical assistance, product literature and samples contact us directly, ask for a copy of our current WELDING PRODUCTS CATALOG – we're here to help.



WELDING PRODUCTS SELECTION GUIDE

COOLING FLUIDS – REGULAR TEMPERATURE

ITEM NO	DESCRIPTION	TEMPERATURE
CF1	Designed for use in Plasma, MIG, TIG and resistance welding systems. Available in a ready-to-use format, CANTESCO® COOLING FLUID is a water and ethylene glycol based formulation designed to cool and protect equipment.	+19°F / -7°C

COOLING FLUIDS – MID TEMPERATURE

ITEM NO	DESCRIPTION	TEMPERATURE
CF2	Same as above, except mid temperature cooling fluid formulation.	+6°F / -14°C

COOLING FLUIDS – LOW TEMPERATURE

ITEM NO	DESCRIPTION	TEMPERATURE
CF3	Same as CF1 except low temperature cooling fluid formulation.	-32°F / -35°C

COOLING FLUIDS – EXTREME TEMPERATURE

ITEM NO	DESCRIPTION	TEMPERATURE
CF4	Same as CF1, except extreme temperature cooling fluid formulation.	-60°F / -52°C

COOLING FLUIDS – INHIBITED PROPYLENE GLYCOL BASED

ITEM NO	DESCRIPTION	TEMPERATURE
CFPG	An inhibited blend of di-ionized and charcoal carbon filtered water and propylene glycol. Product does not contain ethylene glycol or other hazardous ingredients.	+10°F / -12°C