

# COLORCOOLING

Liquid Antiscalant Cooling Water Conditioner Nitrite-Borate Base Colour Indicating

## Technical Information

### Physical Data

Appearance:	Red liquid
Density:	1.2
pH 1%:	9.5 – 11

### Description

This is a specially formulated corrosion inhibitor with alkaline builders and sequestering agents. It provides excellent corrosion protection for freshwater diesel engine cooling systems. It can be used in all cooling systems, such as jackets, pistons, injectors, cooling towers, coolers, and piping. It contains a color-indicating system that turns the solution clear when the pH falls below the safe level of 8.3.

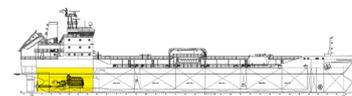
### Advantages

- ▶ COLORCOOLING is an efficient corrosion inhibitor.
- ▶ Eventual overdosages do not cause overheating.
- ▶ Concentration can be easily determined on board by a simple analysis.
- ▶ It is easy to use and can be used even when the cooling water is used as fuel for the ship's distillers.
- ▶ Conditions metals to resist rust and prevents scale from forming in the freshwater system.
- ▶ Holds scale-forming minerals in suspension.
- ▶ It contains a pink color indicating its presence in the water, even without analysis. When the pink color changes to colorless, the pH has fallen below 8.3, or there is no more COLORCOOLING in the system.

### Direction for Use

1. Determine the required treatment quantity for the system using the product dosage chart. **Note:** Sacrificial anodes (magnesium or zinc) and galvanized coatings inside the cooling water system must be removed before adding COLORCOOLING, as these materials are unnecessary in the treated system and can cause undesirable deposits if allowed to remain. Consult the local Uniservice Unisafe representative for additional information.
2. Add the solution to the system through the expansion tank or a dosing line.
3. Consult the Uniservice Unisafe representative for an eventual automatic dosing system to feed the product.
4. Systems contaminated with oil and/or scale should be cleaned before applying COLORCOOLING treatment. Use SEACLEAN for degreasing and DESCALING LIQUID or POWDER for descaling operations.

#### USAGE AREAS



Water Treatment

#### PACKAGING



#### APPROVALS



# COLORCOOLING

Liquid Antiscalant Cooling Water Conditioner Nitrite-Borate Base Colour Indicating

## Usage Guidelines for COLORCOOLING-Treated Water

Nitrite (NO<sub>2</sub>): 1500 to 3000 (see instructions below)  
 Chlorides: Normal speed engine 100 PPM max  
 High-speed engine 50 PPM max  
 Hardness: Max 180 PPM CaCO<sub>3</sub>  
 pH: 8.5 to 9.5  
 In case the pH is below 8.5, add a small dose of ALKALINITY CONTROL to increase it.

## Recommended Nitrite or Sodium-Nitrite Range

Normal Speed Engine		
Type of water chlorides concentration (ppm)	Initial dosage for 1 t of water (liters)	Min. concentration Nitrite (NO <sub>2</sub> ) ppm
Deionized or up to 50	12	1500
From 50 to 100	16	2300
High Speed Engine		
Deionized or up to 50	16	2300
From 50 to 100	24	3000

Always add COLORCOOLING where circulation is high. Some new system's feeder tanks are only for expansion and have very little or no circulation. In case of loss of treatment levels, check first for leakage in the system. Always use distilled/deionized water.

Call for a Uniservice Unisafe engineer in case the loss of treatment (Nitrite levels) is not due to leakages in the cooling system but to other reasons like BACTERIA CONTAMINATION or OXIDATION of NITRITE that will change into NITRATE, decreasing the protection to the system. On new buildings or overhauled systems, follow Engine Manufacturer's advice closely in conjunction with Uniservice Unisafe.

All competitors' Nitrite/Borate-based water treatments are compatible with COLORCOOLING, but allow the old product to drop to the lowest limit and start dosing Uniservice Unisafe product. COLORCOOLING will slowly remove sludge and other residues during the initial period of operation. This may result in cloudy water, which will clarify after draining small quantities of water. It is not necessary to remove all existing coolant unless inspection has shown excessive contamination. In case of changing the treatment after the soluble oil inhibitor type, it is advisable to perform a complete draining, cleaning, and degreasing of the circuit, but consult the Uniservice Unisafe representative for the correct procedure of changing over to COLORCOOLING.

# COLORCOOLING

Liquid Antiscalant Cooling Water Conditioner Nitrite-Borate Base Colour Indicating

## Dosage of COLORCOOLING

Initial Dosage of COLORCOOLING: 12 liters per ton of water (1000 l)										
Nitrite (NO <sub>2</sub> ) ppm	0	400	750	1100	1500	1500 – 2300				
COLORCOOLING l / t	12	9	6	3	0	Suspend dosage				
Initial Dosage of COLORCOOLING: 16 liters per ton of water (1000 l)										
Nitrite (NO <sub>2</sub> ) ppm	0	400	800	1150	1500	1900	2300	2300 – 3000		
COLORCOOLING l / t	16	13	10.5	8	5	2.5	0	Suspend dosage		
Initial Dosage of COLORCOOLING: 24 liters per ton of water (1000 l)										
Nitrite (NO <sub>2</sub> ) ppm	0	400	750	1100	1500	1900	2250	2600	3000	3000 – 3500
COLORCOOLING l / t	24	21	18	15	12	9	6	3	0	Suspend dosage

## Safety and Environment (HSE)

Uniservice Unisafe Srl have carefully developed their products to minimize the safety risks and environmental impact of using their products. However, Uniservice advises that, prior to using its products, users should read in detail the accompanying Safety Data Sheet and ensure that its products are applied within the required HSE regulations of the country in which the user operates. Best practice and safety requirements should be followed which will likely include method statements and risk assessments, together with any specific requirements of the user's own company HSE requirements.

Uniservice Unisafe Srl hereunder are given gratis, and Uniservice Unisafe Srl assumes no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk. Product images are for reference purposes only.

## Important Notice

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, this information is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you do a test to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data and information furnished by

## Contact

For further information, please contact your local Uniservice Unisafe sales representative or get in touch with us:

**Uniservice Unisafe** SRL  
 Marine Chemicals Division  
 Via al S.N.S. della Guardia 58a  
 Genoa 16162 Italy  
 (+39) 010 711 395  
 (+39) 010 713 120  
[www.uniservicemarine.com](http://www.uniservicemarine.com)