UNICLEAN BTCI

1. DESCRIPTION

UNICLEAN BTCI is a liquid alkaline molybdate based corrosion inhibitor, boostered with chelating agents, which are designed to provide complete protection against corrosion and scaling in closed cooling and ballast systems.

2. APPLICATIONS

UNICLEAN BTCI is a completely non-toxic, non-chromate, non-zinc corrosion inhibitor for use in closed diesel engine cooling jackets, as well as fresh water ballast systems. It is most effective in systems utilizing water of total hardness of less than 200 ppm as calcium carbonate. **UNICLEAN BTCI** is not recommended for use with seawater or brackish water because of their high total hardness content.

3. DIRECTIONS FOR USE

PROCEDURE AS FOLLOWS:

STEP I	Introduce **UNICLEAN BTCI** to ballast system at a ratio of 0.75 liter per metric ton of ballast water.
STEP II	**UNICLEAN BTCI** should be added to the ballast system from the drum. You may use either a gear or piston type barrel pump to transfer the **UNICLEAN BTCI** from the drum to the ballast system. It can also be poured from a drum directly into ballast system via the fill line sounding tube or manhole.
STEP III	**UNICLEAN BTCI** does not have to be diluted. It can be added full strength to the ballast system. However prior to the **UNICLEAN BTCI**, introduce a small quantity of fresh water to the ballast system approximately 4 to 5 tons. Then proceed to add the **UNICLEAN BTCI** at the dosage rate prescribed above until the full quantity has been introduced.
STEP IV	Then proceed to fill the ballast system to its full water capacity with fresh water. All surfaces must be immersed in the **UNICLEAN BTCI** solution so as to maximize corrosion protection.
STEP V	Repeat the same procedure for all ballast systems to be treated with **UNICLEAN BTCI**.

HANDLING / TOXICITY

HANDLING: UNICLEAN BTCI is packaged in 208-liter drums or 25-liter pails.

TOXICITY: UNICLEAN BTCI is a completely non-toxic and non-chromate product. It is a mildly alkaline material so contact with skin or eyes should be avoided.

UNICLEAN BTCI requires no special handling, but it is suggested that the workers use gloves and splash proof goggles when using the material.

BALLAST TANKS CORROSION INHIBITOR

Product Highlights

- Complete protection against corrosion and scaling in closed cooling and ballast systems.
- Non-toxic, non-chromate, non-zinc corrosion inhibitor.

Product Characteristics

Appearance:	Clear liquid
Corrosive action:	None
Flash Point:	None
pH:	10-11

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clean chemicals clean ships clean seas

UNICLEAN BTCI

TEST KIT INSTRUCTIONS:

STEP I	Fill 0230 tube to line with ballast water to be tested.
STEP II	Add seven drops of reagent #6381 (hold bottle in vertical position).
STEP III	Then add 0.1 gram of reagent #6630 (Cap Tube).
STEP IV	Insert Tube in comparator.
STEP V	Comparator reading is in ppm sodium molybdate. Multiply reading by 0.4 to determine ppm molybdenum
STEP VI	PPM of molybdenum should range between 2.5 to 3 ppm. This will ensure optimum level of corrosion control.
STEP VII	Test should be conducted at monthly intervals.

4. INITIAL DOSAGE

Normal dosage of **UNICLEAN BTCI** for diesel engine closed water systems would be 1% of the total water content in the system **(1 liter for each 100 liters of fresh water)**. Additional treatment should be based on make-up at the same dosage rate. **UNICLEAN BTCI** can be added to the surge tank, or with a bypass feeder or positive displacement pump.

5. CONTROL LIMITS

For corrosion control in fresh water ballast systems, the normal dosage of **UNICLEAN BTCI would be 0.75 liter per metric ton of ballast water**. It can be added to the ballast system direct from drum, or by any convenient method available. For both applications we recommend the use of a UNI AMERICAS' test kit to measure the molybdate content of the treated water on a daily basis.