

# ADICO NC L

## (Non chromate product for closed cooling water treatment)

## **DESCRIPTION**

ADICO NC L is a liquid, nitrite/borate based compound for scale and corrosion control in closed recirculating cooling systems.

#### **APPLICATIONS**

Corrosion inhibiting treatment for closed recirculating systems such as: Diesel Engine cooling water systems Compressor cooling water systems Centralized cooling systems Central heating systems etc. Chilled water systems Transformer cooling systems

## FEATURES AND BENEFITS

Deposits on metal surfaces and electrolytic corrosion is prevented, cooling system component life is prolonged, maintenance and repair needs are reduced.

Effective against cavitational corrosion (corrosion induced by high frequency vibration).

As sludge is controlled and existing scale is gradually reduced cooling system cleanliness and efficiency are increased.

Constant pH levels are maintained even when over-dosed. Little risk to metals such as brass and copper from excessive pH levels exists.

Dose levels are independent from cooling water dissolved oxygen levels.

Harmless to non-metals, including hoses, gaskets, seals and compatible with permanent type anti-freeze.

<u>Corrosion reduction</u>: ADICO NC L is a nitrite-borate compound formulated to combat corrosion by controlling cooling water alkalinity and depositing a thin stable protective film over surfaces at risk. Laboratory tests have shown surface passivation by ADICO NC L to be able to reduce corrosion by more than 95% per year in comparison with untreated water.

The compound is alkaline and in solution, assures control of coolant water pH levels within close limits. Optimum alkalinity suppresses acid based corrosion which may lead to general damage and local pitting.

By ensuring that, even when grossly overdosed, the cooling water pH does not rise above critical levels. ADICO NC L provides protection for amphoteric metals, i.e. those which are liable to attack from extremes of acidity or alkalinity.

These metals, such as zinc, are frequently present in combination with brass, copper and iron and generally are present in cooling water systems and their components. Special inhibitors in ADICO NC L additionally protect these metals.



Their protection is important and can't be assured by the addition of simple alkaline water treatment chemicals.

<u>Scaling Control</u>: ADICO NC L combines and reacts with sludge, scale and rust deposits found in incorrectly treated cooling systems and will ensure their gradual removal without the risk that may be associated with acid cleaning.

Its use will clean and maintain cleanliness in all badly fouled systems.

In cases where systems are contaminated with oil and / or scale they should be cleaned before starting to apply ADICO NC L.

In these cases, degreasing should be performed with OIL REMOVER S and descaling with SCALE OFF S.

## PRODUCT DOSE AND CONTROL

Initial dose for an untreated system to inhibit corrosion is 10 Lt of ADICO NC L for every ton of cooling water.

That gives approximately Nitrite concentration of about 1700 ppm.

Thereafter the dose rate of ADICO NC L is based on the nitrite concentration of the medium under treatment and is given in the table to return cooling water to the mid point value of the control limits. The mid point value is circled.

NITRITE	0	250	500	750	1000	1250	1500	2000	3000	4000
ppm NO <sub>2</sub>										
ADICO NC L	10	9	7	5	3	2	0	0	0	0
LT/1000lt.										

In cases of poor quality water, increased dosages may be necessary.

Buffering agents in ADICO NC L maintain pH values within suitable limits when the product is dosed as recommended.

Cooling water pH can also be checked and should be kept between 8,3-10.

#### **PACKAGING**

Non-returnable 25 liter plastic pails and drums of 250 kg.

The testing equipment to measure cooling water quality and control treatment with ADICO NC L is available from EUROCHEM S.A.