


THE ULTIMATE METAL PROTECTOR





Preventive measures will decrease maintenance costs, early system failures, and an overall improve service life of ships granted they are detected in enough time.

When a metal is affected by corrosion, an oxide layer is formed which in turn protects a metals lower layers from further harm. Removing oxidation begins when salt water flows over this layer.

Why is corrosion a hazard to the industry?

Ship corrosion is a major hazard for the industry. The deterioration of these structures causes higher maintenance costs, early system failures, or an overall shortened service life. Corrosion is a natural process which as a result, reduces metallic elements back to their original state. 935,75

Why does corrosion occur in a confined space?

Therefore, Crevice corrosion involves the interaction of one metal part with two connected environments such as a tight, confined space, where elements like oxygen are limited. In conclusion, depending on the environments involved, pitting or cracking may occur, causing some serious damage.

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The deterioration of these structures causes higher maintenance costs, early system failures, or an overall shortened service life. Corrosion is a natural process which as a result, reduces metallic elements back to their original state. All metals have different levels of risk for example gold is the least corrosive while magnesium is the most corrosive.

Galvanic corrosion is the most common form of corrosion and therefore the most dangerous. This occurs when two or more metals are in contact with each other, while submerged in an electrolyte solution like saltwater. As a result, the more reactive metal begins to deteriorate at a faster pace which is never a good sign in regards to personal safety. Physical signs of corrosion are flaking and blistering of paint and eventually lead to pitting of the metal.

So, **Stress corrosion** cracking leads to rapid failure of ductile alloys. In addition, the stainless steel develops microscopic cracks from tensile stress and forcing the object in opposite directions.

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Hence, **Inter-granular attack** is the differences between granular boundaries and granular bodies of a metal which occurs at the microscopic level. The surface area crystallizes a metal and is more vulnerable to corrosion than their lower layers causing inter-granular fractures along the metals surface.

Flow-accelerated corrosion this type of ship corrosion occurs from the constant flow of water against a metals surface which can be particularly harmful and may rapidly breakdown a vessels protected layers.

Inhibitors are salt water or electrolyte solutions which are controlled. Anodic inhibitors migrate to the anode creating a protective barrier which as a result, stops corrosion in its tracks. Therefore, **Cathodic Inhibitors** migrate to the cathode which prevents the absorption of oxygen or hydrogen. In addition, **Cathodic Protection** uses sacrificial metal to act as the anode which creates a protective barrier. This metal deteriorates first instead of the ships protected layers. For example on the hull of a ship, zinc plates prevent corrosion of any sub-surfaces.

In the hope of protecting the vessel coat it with three different paint solutions.

- **Binders** - Therefore, the binder is a film forming component of paint.
- **Pigments/Extenders** - these powders mix with the binder at various particle sizes and enhance the overall effectiveness of the binders.
- **Solvents** -Eventually evaporate from the surface and help for easy application.

Miraculously removes salt and salt water from any surface!

Our "Corrosion Blocker" Industrial Corrosion Fighter (ICF) device, dispensing apparatus functions in conjunction with an existing water sprinkler system, consisting of a connected water source.

Once the Industrial Corrosion Fighter (ICF) device water inlet port is connected to a 5 gallon, or a 55 gallon drum of Corrosion-Blocker solvent, the apparatus is automatically programmed to dispense 2 oz. of solvent into each single gallon of fresh water, or 5 oz. of solvent mixed with one gallon of saltwater.

Once mixed, an attached garden hose is connected to a spray nozzle or a motor flush unit nozzle, so that the maintenance crew can conduct routine maintenance, receiving the benefits of sealing the targeted material. Currently, our competition is not advanced enough to be capable of connecting and dispensing such a product, thanks to this new generation corrosion blocker.

UNLIMITED USES

There's nothing on the market to compare with NaClear for preserving the metal on your boat, boat motor, car, truck, motor home, trailer, even your fishing reels, bikes, air conditioners, metal utility buildings, etc.





1

INNOVATIVE

New product designed to protect virtually all metal surfaces from the destructive effects of chloride salts and prevent salt damage. NaClear is a unique combination of counteractive ingredients that removes salt and salt water deposits from any surface, instantaneously.

2

SAFE TO USE

Biodegradable, eco-friendly and safe to use on all metal surfaces, NaClear significantly reduces the corrosive, harmful effects of salt and salt water deposits, thus extending the life of metal surfaces exposed to these destructive elements. NaClear is USDA authorized.

3

EXCLUSIVE CORROSION INHIBITOR

NaClear contains an exclusive corrosion inhibitor, "ANTI-CHLOR", which is a primary ingredient in the protective coating that helps preserve the metal surface. Although NaClear will not correct past damage, it will definitely reduce further damage.

4

A MONEY-MAKING INVESTMENT

By using NaClear regularly as a "Preventative Maintenance" application on all of your equipment, you will retain the "like new" look and extend the life of the equipment. The ultimate savings will be quite significant, like cash in the bank.

5

ECONOMICAL

Super concentrated NaClear is extremely economical. Just a few ounces per gallon of water is sufficient for most types of applications. See directions for use on previous page.



Use NaClear to rinse and remove salt deposits from trucks, tractors, trailers, ocean containers, shipboard equipment, metal buildings, snow plows, salt spreaders, construction equipment, trains, buses, locomotives, boxcars, etc.

NACLEAR IS LAB TESTED



B.A.W. Laboratories, Inc.

1215 Central Avenue Charlotte, NC 28204
March 31, 1987 Reference No: 87C11071-1562

Date Received: March 6, 1987
Client: Innovative Chemicals, Inc.
Sample Identification: NaClear
Analysis: Laboratory analysis
resulted in demonstrating the following:

1. NaClear reduces the corrosiveness of salts and removes salt deposits by reducing the salt content.
2. NaClear leaves a coating that inhibits corrosion.
3. NaClear extends the life of metal surfaces exposed to salt and salt water by leaving a coating and reducing the salt content.
4. NaClear protect and does not harm any metal surfaces as shown.

Analyzed by: B.A.W. Laboratories, Inc.

N.C. Certificate No. 48
N.C. Certificate No. 37702
E.P.A. Certificate No. 02006
S.C. Certificate No. 99004



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