



*Manufacturer of products that protect against salt corrosion*

*The Royal Treatment™*

## FACTS ABOUT SALT

- Salt solutions cannot be neutralized. Solutions that are either acidic (pH 1.0- 6.9) or alkaline (pH 7.0 - 14.0) can be neutralized. The pH of a salt solution is 7.0. No product or other substance can “neutralize” a solution that is already neutral.
- Salt is hygroscopic. A hygroscopic substance has the capability of attracting moisture and retaining moisture.
- Salt does not “cause” corrosion. Three elements are required to create corrosion: 1. A corrodible material, 2. Oxygen, 3. Moisture.
- A corrodible material can corrode at a faster rate of speed if either of the other 2 elements (oxygen, moisture) exist in a constant environment of the material at greater levels than that which is considered normal or average. Conversely, a corrodible material can corrode at a slower rate of speed if either of the other 2 elements exist constantly at lesser levels than normal or average. Examples: 1. A corrodible object corrodes at a faster rate of speed if the constant atmospheric moisture level is considered high (high humidity) such as a tropical island, as opposed to a constant lower atmospheric moisture level, such as a desert. 2. A corrodible object corrodes at a much faster rate of speed, where if the constant level of oxygen is greater, such as at sea level, than where the constant level of oxygen is lesser, such as at the bottom of the sea.
- Salt that is attached to a corrodible material, having the ability to attract and retain atmospheric and other moisture, causes the surface of the material to be constantly wetter than in normal or average conditions, therefore, the presence of salt on the surface assists and accelerates the existing possible corrosion process.
- Salt contains negatively and positively charged ions (calcium is positive; chloride is negative) which are chemically bonded through electrostatic attraction between the two opposing ions. Ionic compounds conduct electricity when dissolved. Microscopic electrical charges become active on wet corrodible surfaces and contribute to the acceleration of the corrosion process.
- Salt must completely be moved off a corrodible surface if deceleration of the corrosion process is desired.
- No commercial product or other liquid substance can move salt crystals from a surface by the act of dissolving them. The salt crystals must physically be moved off the surface at obvious exit points.
- Salt crystals cooperate much better at being moved if they are dissolved. The major element required to move dissolved salt crystals off a surface is gravity. If a liquid containing dissolved salt crystals is not allowed to completely exit the surface by gravity, they will remain on the surface.
- Because salt is soluble, it can be dissolved in almost any liquid. Water is the most common substance used to dissolve salt for many uses. Due to the unique characteristics of water, it has a difficult time moving dissolved salt crystals off a surface. One of the characteristics of water is its high level of surface tension. Water surface tension is evident when looking at a “bead” of water. It is the tension that holds the bead together. Salt crystals (and other soluble substances) dissolved in water attach themselves to the surface tension. Since water can evaporate, and salt cannot, the salt remains on surfaces long after the water evaporates.
- Salt crystals are a mineral of the earth and cannot be destroyed. There is no other element of the earth or a product that can cause salt crystals (and other soluble minerals) to disappear or vanish from a surface by dissolving them. But they can be moved from place to place. In the effort to completely move salt from a surface by dissolving it in a Salt-Away solution, the salt must be moved while in solution either by pushing with pressure methods, by vacuuming or by gravity to exit the areas of the surface. After it is moved to another location, it will stay there until moved again by another force; air, water, humans, animals, nature.