ZEOTEC S-ACID

GENERAL DESCRIPTION:

ZEOTEC S-ACID is an inhibited sulfamic acid in dry powder form.

RECOMMENDED USE:

ZEOTEC S-ACID is designed to remove scale and deposits from boilers, heat exchangers, evaporative condensers and piping without attacking the underlying metal.
Z S-ACID is used as a descaler for either boiler water, cooling water or heat exchange systems.
Z S-ACID can be used to clean a cooling water system while in operation or the condenser can be isolated. Optimum results are obtained when boiler water is heated to 50-60° C for on-line cleaning.

TECHNICAL SPECIFICATIONS:

pH of 1% Solution..... <1.0 to 1.3
Solubility..... Miscible in all proportions of water
Physical State…….Powder

HANDLING & STORAGE:

Do not take internally. Handle same as any other acid. Avoid breathing excessive amount of fumes. Avoid eye and skin contact; wear goggles and gloves. If eye or skin contact, flush with plenty of water and seek medical attention.

An M.S.D.S. sheet is available upon request.

DOSAGE & CONTROL:

Please consult your ZeoTec Representative for specific usage.
Typical dosage for flushing system is 156 lbs to 264 Gallons volume.
For cleaning, maintain between a 5% to 10% solution or 60 pounds of Z S-ACID per 100 Gallons of water in the system.

PACKAGING:

ZEOTEC S-ACID is available in 5 Lbs bag.

USE INSTRUCTIONS:

Dissolve 1 pound per gallon in water (warm water is preferred).
Make sure totally dissolved before adding to system to be descaled.

NOTE: We suggest making up solutions with as warm a water as possible to facilitate dissolving of the S-ACID and to improve its descaling properties.

PRICING:

Contact Zeotec Limited

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Technical Data Sheet

Cleaning Metals with Acid Cleaners

Acid cleaners are primarily used to remove inorganic deposits such as lime scale, rust, etc.
Acid cleaning agents are also used to pickle stainless steel. The type of acid chosen to clean the metal depends on the substrate and the type of contamination.

In general, strong acids such as hydrochloric acid, nitric acid, sulphuric acid and phosphoric acid are unsuitable for use with light metals such as aluminum, zinc, copper and nickel.
This is because these metals undergo a fairly violent reaction in a strong acidic environment; they dissolve, and generate hydrogen gas. This can form an explosive mixture with oxygen (in the air!).
In such situations the addition of rust inhibitors, often complex organic amines, can offer the answer.
In general, strong acids are generally used for industrial cleaning.

Weak acid such as Sulphamic acid (S-Acid) are suitable for use with metals such as aluminum, zinc, copper and nickel.
Although these metals will be affected by these acids, this will be much less severe.
Moreover these acids are more pleasant in use. For this reason weak acids are used, in particular, for cleaning in the institutional sector. The properties possessed by acids can be used to remove specific deposits such as rust (iron oxides). The detrimental side-reaction between an acid and metal can be greatly reduced by the addition of inhibitors to the acid solution. Inhibitors are often comprised of organic nitrogen (nitrite) compounds
Surfactants ensure that the surface is thoroughly wetted with the solution, which in turn results in a more uniform surface reaction and prevents localized corrosion. The inhibitor counters corrosion by forming a thin film on the surface of the metal. The surface of the metal is slightly charged, as a result of which polar organic compounds (inhibitors) are drawn to the surface and form the protective layer.

Using Z-S-ACID

For Boiler systems & Cooling Towers use a circulation treatment of a 5% to 10% solution depending on how bad the system is. Before applying flush out system and refill with clean water.
Determine the volume of water and mix in the sulphamic acid at a rate of 50g to 100g per litre of water.
It may be necessary to add a corrosion inhibitor to help protect mild steel, brass, copper and stainless steel from acid attack. Circulate the solution at room temperature or heated to a maximum of 60C for heavier cleaning.
Note: Do not use at boiling point or product will undergo hydrolysis and not work. Do not heavily use on galvanised materials, zinc or aluminum. Sulphamic acid will not remove silica or calcium phosphate scales.
After cleaning rinse thoroughly and check system. Repeat applications may be necessary for heavily soiled systems.
Periodic flushing of the system to remove loosened scale and contaminants will be necessary.

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