BSS200™

Membrane System Antiscalant

MSDS OF MEMBRANE

Product Performance

- ❖ Can effectively prevent various water systems in the formation of scale
- ❖ Greatly reduce the number of system scale, reduce the frequency of cleaning film
- ❖ Reduce the amount of acid or do not use acid
- ❖ Feed rate is small, the effect of significantly Calc
- ❖ Applicable to all kinds of films
- ❖ Have accumulated nearly 20 years experience
- ❖ Cooperation on the use of iron have ao
- ❖ As reverse osmosis scale inhibitor in high-end products, its barium, strontium, silicon and other insoluble salt precipitation of scale type has a strong suppression
- ❖ Than sodium hexametaphosphate (SHMP) is more stable, more effective
- ❖ Can accelerate the regeneration of the system

Main Purpose

BSS220 is a high-end film industry Calc agents need to use the water in the pharmaceutical and large scale systems using the salt of the product has been successfully used for nearly two decades.

General Information

BSS220 is a liquid product. Its chemical and physical properties can be found in its Material Safety Data Sheet.

Security matters and disposal methods

- ❖ Potentially dangerous;

BSS220 not dangerous, but the disposition and use still need to be very careful because it is after all a chemical. BSS220 safety data sheet can be obtained from our company.

BSS220 Thorpe U.S. Chemical (SOAP Chemical sep. GROUP INC.) Registered trademark.

Application

Film system for the first time in 1992 using BSS220, then start all over the world have used BSS220 to prevent scale formation, including some large-scale drinking water plant. The world's most film makers think BSS220 is a highly effective waterproof scale agent and should be introduced.

BSS220 can reduce the risk scale, using the system no longer uses pickling methods, has greatly enhanced productivity. Reverse osmosis scale inhibitor at the same time as the field of high-end products, not only can prevent general water play the role of scale, its advantage is more reflected in the water barium (Ba), strontium (Sr), silicon (SiO2) and other large presence.

People to prevent scale formation in the process made a detailed study. In the film system, the scale generated a "critical value" plays a very important role.

BSS220 is a saturated salt solution for a variety of agents Calc. Therefore the system regeneration speed, and has the following advantages:

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- ❖ Concentrated solution of the emissions in full compliance with relevant environmental regulations.
- ❖ Further enhance its effectiveness.
- ❖ Can reduce the amount of various chemicals
- ❖ Concentrated solution can reduce the amount of waste
- ❖ Can reduce the amount of water

Scale	Index	After Using BSS220	Typical Feed Rate Limits
CaC03	LSI	≤ 3.5	3.0 to 5.0mg/L
CaS04	Ipb:Ksp	≤ 28	3.0 to 4.5mg/L
BaS04	Ipb:Ksp	≤ 2800	1.5 to 4.5mg/L
SrS04	Ipb:Ksp	≤ 1500	1.5 to 4.5mg/L
CaF2	Ipb:Ksp	≤ 100	2.0 to 4.0mg/L
Si02	mg/L	≤ 280	0 to 5.0mg/L
Fe	mg/L	≤ 4.5	0 to 6.0mg/L
Al	mg/L	≤ 4.0	0 to 6.0mg/L

Note: (a) If using Stiff & Davis Saturation Index, the S & DSI's never reached the maximum limit (in terms of the BSS220)

(B) our proposed indicators of iron content in iron content of the steam required in the 1.2mg / L the following.

Silicon Dioxide Pollution

Relatively high silica content in the conditions, BSS220 system still can maintain normal operation. When the silica content in the brine is less than 240 mg / L, you can use BSS220, when the silica content exceeds the value should be used when BSS220 +.

BSS220 Compared With Acidic

- ❖ Use BSS220 than using acid to secure more;
- ❖ BSS220 doses lower than the dose of acid, therefore lower cost;
- ❖ Sulfuric acid can only remove the carbonate, but also increased the content of calcium sulfate, and BSS220 are two kinds of salts can be removed. BSS220 treated water, the PH value is relatively high, can inhibit the formation of bicarbonate;
- ❖ PH value in the general conditions, work environment virtually no corrosion.

BSS220 and Sodium Hexametaphosphate

- ❖ Hexametaphosphate (SHMP) the relatively short preservation time, need to prepare every day.
- ❖ Waterproof scale in terms, BSS220 much better results than SHMP, and LSI values and Ipb / Ksp values are very high, which indicates the use BSS220, the system speed up the regeneration speed.
- ❖ BSS220 much more stable than SHMP, but not easy to generate the precipitation of calcium phosphate or iron phosphate. Therefore, the system frequency for the greatly reduced.
- ❖ BSS220 doses significantly lower than SHMP.

The existence of iron ions in the environment BSS220 performance

Under the following conditions, researchers BSS220 ability to inhibit the calcium carbonate and iron salts were investigated:

PH	8.0
Calcium (mg / L)	680
Bicarbonate ions (mg / L)	850
NH4Cl (mg / L)	50
Time	2 hours
Stirring speed	200rpm
Temperature	25 ℃

The results show that there are 1.6 mg / L of iron can be inhibited. Blank experiments showed that, BSS220 concentration reached 3.0 mg / L, the calcium ions have complete control. If the concentration of iron 5.6 mg / L, then, BSS220 concentration must be 6 mg / L of calcium ions can be completely suppressed, because the inhibition of iron needed BSS220 reduction in calcium concentration is greater than the concentration required, Therefore, simultaneous inhibition of these two ions need time, BSS220 concentration must be higher, in the above test, BSS220 the concentration required to achieve 8.5 mg / L or so, can also inhibit calcium and iron.

Presence of barium and strontium in the environment BSS220 performance

Under these conditions, test results show that, at a concentration of 8mg / L when, BSS220 inhibit barium sulfate (2800Ksp) co-exist with calcium carbonate, strontium sulphate, compared with 1500 Ksp.

Toxic chemical and environmental information

The results show that, BSS220 on drinking water and environment friendly.

Physical and Chemical Properties

Appearance and Shape: Light amber transparent liquid A small amount of ammonia odor

Weight (standard solution): 1.25±0.05 g/cm3

Water solubility: completely soluble

PH (1%): ~10—11.5

Stability and reactivity

Cut with material: Acid class, strong oxides

Storage: frost, cool, dry, ventilated

Decomposition products: orthophosphate

Services

Our technical representative can help you develop a specific treatment plan, if you need any assistance or information, please contact us.