



OS – 418

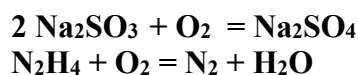
(A new oxygen scavenger – carbohydrazide based)

DESCRIPTION

OS - 418 is a new oxygen scavenger based on OS - 418 s in order to substitute Hydrazine and Sulfite, which are traditionally, used for this purpose in all boilers high and low pressure.

Limitation of Sulfite and Hydrazine

Equations 1 and 2 show the reaction of Sulfite and Hydrazine with oxygen.



Each however has limitations.

Sulfite increases the total dissolved solids in the boiler water through the formation of Sodium Sulfate. Therefore boiler blow down must be increased resulting in greater chemical and fuel costs. Sulfite is only an oxygen scavenger and does not form a protective film of black magnetic iron oxide (Fe_3O_4 , magnetite). This magnetite film passivates and protects the metal surfaces.

Hydrazine is not as effective as sulfite is as an oxygen scavenger and it is very toxic.

Hydrazine has been classified as a suspect carcinogen by OSHA and NIOSH. It has been regulated by the FDA to exclude any use that might come in direct contact with food.

Both Hydrazine and Sulfite are non – volatile. (Hydrazine has limited volatility). and they do not protect the steam – condensate return line system. It is obvious that the need for new oxygen scavengers is essential.



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Our new product **OS - 418** is a concentrated corrosion inhibitor used to remove oxygen chemically from feedwater, boiler water and condensate in steam generating systems. Additionally, it passivates iron and copper surfaces, rendering them more resistant to corrosion.

OS - 418 has the following benefits:

- It is suitable for boilers up to 220 bars.
- It is a very efficient oxygen scavenger.
- Forms a passivating protective film of magnetite and cuprous oxide films.
- It does not increase the total dissolved solids.
- It is sufficiently volatile so that it can protect against oxygen corrosion in the entire boiler system including the steam – condensate return lines.
- Due to its unique property of being volatile it controls carbon dioxide corrosion in the condensate return line systems.
- The product is non – toxic.
- Minimizes iron and copper deposits in the boiler by reducing these metals to their more soluble ferrous and cuprous forms.
- The ability to provide corrosion protection to the afterboiler sections of the system.

DOSAGE

The recommended dosage is 28 ppm of OS - 418 to 1 ppm oxygen.

CAUTION

Avoid contact with skin and eyes. In case of contact, rinse with plenty of water. Wear suitable protective clothing. For further information refer to Material Safety Data Sheet.