



Defining Excellence Since 1929

A NEW JERSEY CORPORATION
35 Carlton Avenue
East Rutherford, New Jersey 07073

Telephone: (201) 438-5200
Fax: (201) 438-5207
Internet Address: www.ROYCEINTL.com

TECHNICAL DATA SHEET

SODIUM FORMALDEHYDE SULFOXYLATE (ROYCE S.F.S.)

Appearance:

Premium Clear White granules, free from visible impurities

Specifications:

ASSAY:	98% min. (As Dihydrate, By Iodine Titration)
pH of 10% Solution:	9.8-10.5
Alkalinity as Na ₂ CO ₃ :	1.5-2.5%
Iron:	10 ppm max.
Zinc:	30 ppm max.
Heavy metals as lead:	10 ppm max.

Application:

- Royce S.F.S. is primarily used as a redox catalyst in emulsion polymerization, where uniformity, purity, and special quality control assures consistency, high yields, and good quality of the polymer produced. It can be used in aqueous polymerization run at pH between 3.2 and 11. (for lower pH's, inquire about other Royce catalysts).
- Royce S.F.S. is a very efficient oxygen scavenger, and is used as such in metal recovery and polymeric applications.
- Royce S.F.S. is a reductive bleach, alone or in combination with a chelating agent, it can be used to brighten plastic.
- Royce S.F.S. is used in the textile industry for discharge printing, and in color stripping of wool and synthetics.
- Royce S.F.S. is used a stabilizer and/or antioxidant, in industrial and pharmaceutical formulations.
- Royce S.F.S. is approved as an indirect food additive in 21 CFR for a number of applications in paper and rubber. Customers have to make certain that their specific application is covered.

Chemistry:

The reducing power of Royce S.F.S. is increasing as the pH is lowered and/or as the temperature is increased. If the pH is lowered below 4, good agitation should be used to prevent local acid decomposition. Below pH 3.5 it is recommended to use the zinc stabilized products. For reductions at elevated temperatures, as done in some textile applications, it is recommended not to go over 222°F.

Above pH 12, aqueous solutions should not be heated in the open, above 80°F, as they may release some formaldehyde.

The stability of aqueous solution is decreasing with decreasing concentration, as the product ionizes. Addition of caustic or salt will increase the stability. Moist powder or crystals, and over saturated solutions are not stable. They rapidly develop a garlic like odor, and slowly lose activity.

In absence of water, Royce S.F.S. cannot be heated above 170°F without danger of violent decomposition.

Packing and Storage:

Royce S.F.S. is supplied in 25 Kg. / 55 Lb bags. It has a shelf life of one year when stored in its original packing at normal ambient temperatures.

Handling and Safety:

Please refer to the MSDS before using this material. Sodium Formaldehyde Sulfoxylate is intended for industrial use only.

Disclaimer:

All recommendations for use of our products, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us are based on the current state of our knowledge. Although the information contained in this sheet is accurate to the best of our knowledge, no liability can be accepted in respect of such information and no warranty or conditions are intended in respect of the product described as the conditions of application are beyond our control.
