



TinMS400 DA-5
Acid Deficit TinMS400
Product No 50050

TinMS400 DA-5, the latest tin product from **InnoChem**, is a source of highly concentrated stannous methane sulfonate. The common generic tin methane sulfonate contains elevated levels of free methane sulfonic acid (MSA) resulting in acid growth within the electrolyte during the plating operation. To maintain process efficiency it is therefore necessary to dilute the plating solution and add tin to return to optimum plating parameters. The use of **InnoChem TinMS400 DA-5** prevents acid build up from tin concentrate additions and removes excess free acid developed in the course of the plating operation.

Advantages / Benefits:

- The generic tin methane sulfonate (TinMS) typically contains in excess of 60 grams of free MSA above the stoichiometric amount for each liter of product. For one-liter addition of generic TinMS solution to a bath will raise the tin content by 400 grams (in the case of 400 g/l product) and raise the free acid by 60 grams.
- **InnoChem TinMS400 DA-5** is manufactured to contain less than 5% of the stoichiometric amount of the sulfonate component. Each of one-liter addition of **InnoChem TinMS400 DA-5** will therefore raise the tin content by 400 grams but will reduce the free acid by 32 grams.
- **InnoChem TinMS400 DA-5** helps maintains the optimum process efficiency through a close control of acid-to-metal ratio

Applications:

InnoChem TinMS400 DA-5 is a **direct replacement** for generic Tin Methane Sulfonate in tin plating solution both for the make-up and the replenishment. It provides the reduced free MSA content in tin plating solutions.

Note:

For the control of rapid increases in free acid concentration, as encountered with inert anode operation, it is recommended that **InnoChem STANNOX** (product # 50502) be used.

Ordering Information:

50050	TinMS400 DA-5	55 gallon (Contains 400 g/l Tin II)
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**Any Questions regarding the use of this product please consult InnoChem
or your local representative.**