

# ZINCOPASS ODM

OLIVE DRAB MILITARY PASSIVATE

## INTRODUCTION

Zincopass ODM is a process for producing an olive drab chromate on zinc plate, suitable for all applications including defense. It can be used with acid, cyanide, and alkaline non-cyanide deposits. Zincopass ODM is preferably used for rack plating, but can also be used in basket or barrel operations.

## BENEFITS

- Long solution life
- Ease of control
- Maximum corrosion protection (up to 550 hrs in neutral salt spray)

## SOLUTION MAKE-UP

Zincopass ODM      10% v/v  
DI Water              Balance

## OPERATING DATA

Concentration	8 – 12% v/v
Temperature	77 – 95°F
Time	30 – 60 seconds
pH	0.6 – 1.2*

\*Note: Olive drab “color” can be lighter or darker. pH can be increased up to 2.0 for a lighter green color.

Manufactured for North America exclusively by **FOCUSTECH™**



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Page 1 of 4  
ODM-08/23  
NA-ISSUE 06

# EQUIPMENT

<b>Tanks</b>	Polypropylene, PVC, or polyethylene, or steel lined with these materials
<b>Heaters</b>	PTFE immersion
<b>Agitation</b>	Mild air
<b>Ventilation</b>	Recommended

# INSTALLATION

It is essential that the tanks to be used for Zincopass ODM are thoroughly cleaned and leached before any product is introduced.

If there is any doubt as to the cleaning procedure please contact Automated Chemical Solutions.

1. Add DI water to one-half tank volume.
2. Add 10% v/v Zincopass ODM.
3. Add DI water to level and mix thoroughly.

# PROCESS SEQUENCE

1. Zinc plate
2. Rinse
3. Rinse
4. 0.5% v/v nitric acid dip
5. Rinse
6. Zincopass ODM
7. Rinse
8. Rinse
9. Warm air dry 130°F Max.

# MAINTENANCE AND CONTROL

The solution should be analyzed regularly and replenished as necessary. (See Analysis Method)

When additions fail to be effective the solution should be discarded and a new passivate made up.

Zincopass ODM is used to reduce pH. 25% w/v sodium hydroxide can be used to raise pH.

A minimum of 0.23 – 0.31 mils of zinc plate is necessary for proper passivation.

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Page 2 of 4  
ODM-08/23  
NA-ISSUE 06

# ANALYSIS METHOD

## ZINCOPASS ODM Concentration

### Reagents

1. 0.1 N sodium thiosulfate
2. 50% v/v hydrochloric acid
3. Ammonium bifluoride
4. Potassium iodide
5. Starch indicator solution

### Method

1. Pipette a 5 mls sample of the bath into a 500 ml Erlenmeyer flask.
2. Add 25 mls of 50% hydrochloric acid and approximately 100 mls of DI water.
3. Add 1 g ammonium bifluoride and dissolve.
4. Add 2 g potassium iodide and dissolve.
5. Titrate with 0.1 N sodium thiosulfate to a pale straw yellow color. Add 2 mls of starch indicator solution and titrate to a clear, pale green end point.

### Calculation

Zincopass ODM (mls/L) = mls of 0.1 N sodium thiosulfate X 4.4

### Replenishment

Replenish with Zincopass ODM

## STORAGE

Store in original containers above 40 °F.

## SAFETY

CAUTION! Zincopass ODM concentrates and working solutions contain acidic components. Avoid contact with eyes, skin and clothing. Wear chemical handler's gloves, goggles and protective clothing when handling. Read and understand Material Safety Data Sheet before using this product.

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Page 3 of 4  
ODM-08/23  
NA-ISSUE 06

# PRODUCT GROUPS

The following products are referred to in this data sheet.

PRODUCT NAME	PRODUCT NUMBER
Zincopass ODM	237070

## NOTICE

The information and recommendations of PMD (UK), Ltd. and Automated Chemical Solutions, Inc., and its representatives, regarding this product are, to the best of our knowledge, true and accurate. We make no guarantee of results because the conditions of actual use are beyond our control. We assume no liability for damages or penalties resulting from the use of this product or following our recommendations. Our recommendations and suggestions for use of this product are not intended to grant license to operate under or infringe any patent.

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Page 4 of 4  
ODM-08/23  
NA-ISSUE 06