PB SEAL MEA
RUST INHIBITOR FOR FERROUS METALS

INTRODUCTION

A liquid chemical that is added to a final rinse after cleaning, derusting or iron phosphating, to inhibit rust staining during slow drying-off. It can provide temporary corrosion inhibition for several days on ferrous parts when they are stored inside at humidity levels of below 70%. It may be used on aluminium and zinc items, but yellow metals may tarnish. It evaporates at approximately the same rate as water and leaves virtually no residue, allowing the parts to be further processed or over-painted.

BENEFITS

- Helps maintain quality - inhibits rust staining.
- Chromium-free - reduced effluent problems.
- Compatible with a wide range of treatments.
- Concentrated product - very economical.
- Environmentally friendly - no V.O.C. emissions.

COVERAGE

The rate of consumption will depend greatly on bath losses through drag-out and overspray, and the frequency of bath discard.

As a guide the following range has proved reliable:

Dip or Spray: 200 – 400 m 2 /kilo PB Seal MEA.

APPLICATION

Normally, the process sequence is:

1. Degrease, de-rust or phosphate.
2. Clean mains water rinse.
3. Rinse with PB Seal MEA.
4. Dry-off (see DRYING below).

NOTES:

(i) The bath of PB Seal MEA may be heated up to 60°C to enable rapid drying of the components.
(ii) PB Seal MEA contains amines and should not, therefore, be added to any solution containing nitrite, as there is the possibility of forming toxic nitrosamines.

BATH MAKE-UP

By Dip or Spray, for every 1000 litres of bath:

1. Nearly fill the bath with water (**see NOTE below**).
2. Add 13 litres of PB Seal MEA and stir thoroughly or circulate by spray and top up the Bath to the working level.
3. Measure the Rinse Titration (**see BATH CONTROL below**) and adjust accordingly with additional PB Seal MEA if below the stated range. Note initial volume used for future bath make up.

NOTE:

Mains water of 200 ppm total dissolved solids, or higher, will be increasingly unsuitable for a final rinse, particularly if heated. Increasing dissolved solids leads to a decrease in performance. If this is the case, regular discards or deionised water should be considered.

CONTROL POINTS

	Dip or Spray
Rinse Titration cm^3	7 – 9
Temperature °C	15 – 60
Time mins	0.5 – 1.0
Pressure bar (spray only)	0.5 – 1.0

BATH CONTROL/REPLENISHMENT

The bath should be renewed regularly (**see BATH MAKE UP NOTE above**) and kept at its operating level with clean water.

Rinse Titration: Measure 25 cm^3 of the bath into a flask, add 4 – 6 drops of Methyl Orange Indicator solution and titrate with 0.1 M Hydrochloric Acid until the colour changes from yellow to red.

Replenishment: Add 2.0 litres PB Seal MEA per 1000 litres of bath for every cm^3 below the operating level. In areas where the quality of water commended is not available, higher replenishment rates may be required.

EQUIPMENT

The PB Seal MEA stage is usually constructed of mild steel, but for maximum plant life stainless steel may be used. Pipework and jets may be of mild steel, stainless steel, or plastic.

DRYING

An indirect-fired oven operating at 100°C – 125°C and designed for the purpose with rapid air movement is commended. The operating temperature of the PB Seal MEA bath and the jigging of the work should be such that the oven dries the work in the time available.

ENVIRONMENTAL CONSIDERATIONS

PB Seal MEA contains no VOCs or chromium compounds. Baths should be discarded only to mains drainage, together with other rinse waters, and carefully adjusted to pH 6 – 10, since this is the range normally acceptable to Water Authorities. To decrease the pH of 1000 litres of bath to pH 9, carefully add 1.5 litres of PB Acid Adjuster 2 (MP0226); check the pH value after stirring the bath to allow adequate mixing.

HEALTH AND SAFETY CONSIDERATIONS

PB Seal MEA is alkaline. Before use, refer to the Material Safety Data Sheet.

PRODUCT FAMILIES

The following products are referred to in this data sheet.

PRODUCT NAME	PRODUCT NUMBER
PB SEAL MEA	**MP0242**

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