

Mag-Coat

Magnesium conversion coat touch-up kit.

Follow all process and safety instructions as outlined below.

HAZARDOUS INGREDIENTS:

Chromium Trioxide (Chromic Acid)	CAS# 1333820	OSHA PEL .01mg/m3	By Weight 50-60
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Process Instruction

Mag-Coat Magnesium Touch-Up Kit

The complete process for treating magnesium alloys with the Magnesium Touch-Up Kit includes the following steps:

- A. Cleaning
- B. Water rinsing
- C. Treating with Magnesium Treatment
- D. Water Rinsing
- E. Drying

Equipment:

Goggles, rubberized gloves / gauntlets, and clean wiping cloths.

Note:

Any containers and brushes used should be washed out with water after cleaning and after coating with the Magnesium Treatment Solution.

Surface Preparation:

Cleaning:

Surfaces to be treated must be free from corrosion, oil, grease, dirt, etc.
Remove corrosion using documented procedures in individual repair processes.
Clean with an appropriate solvent or an aqueous alkaline cleaner, applied with a clean brush or rag prior to the application of the Magnesium Treatment Solution.

Warning:

Solvents can be flammable and all solvents should only be used with adequate ventilation. Refer to the Material Safety Data Sheet for applicable safety precautions.

Rinsing:

Rinse the surface thoroughly with clean water. After rinsing, the surface should be checked carefully to see that all surfaces are thoroughly wet. If there are "water break" areas, the surface is still dirty or oily and should be retreated with the solvent or an aqueous cleaner until water rinsing produces a "water break" free surface.

It is not necessary to dry the rinsed surface prior to the application of the Magnesium Treatment; keeping the rinsed surface wet with water prior to the application of the Magnesium Treatment will assist in obtaining a more uniform coating.

Treating with Magnesium Treatment:

The Mag-Coat powder must be mixed with water before use. The Magnesium Treatment Solution and the metal surfaces to be repaired should be between 60°F and 100°F (15 and 37°C).

Application Process:

Apply the Magnesium Treatment Solution with a brush to the clean magnesium alloy surface, liberally and evenly. Keep the surface wet for 1 to 3 minutes. Do not allow the solution to dry on the surface. As the treatment solution reacts with the magnesium surface, the part will turn a pale gold to brassy color depending on the treatment time and the alloy.

After the appropriate residence time, rinse the chemicals from the surface using clean water.

Process Note:

Do not rinse the chemicals from the surface with high pressure spray. The coating, when initially formed, is soft and gel-like and can be easily disturbed until it is dry. This can result in blotchiness of the coating.

Magnesium alloys properly treated with the Magnesium Treatment Solution usually have a thin, golden brown to gray colored coating. The coating is hard and free from powder if the chemical has been properly applied.

For large surfaces, the solution should be applied to only as much surface as can be coated and rinsed before the Magnesium Treatment solution dries.

Proceed with the coating and the rinsing until the entire surface is coated with Magnesium Treatment Solution.

Process Note:

When the Magnesium Treatment Solution is applied with a brush, the coating can appear to be non-uniform. Streaks arising from brush marks and "rundown" of excess solution from the brush may be evident but these are not harmful. These conditions may be exaggerated if the metal has not been properly cleaned.

Drying:

After proper rinsing, allow the work to air dry. Clean, dry, compressed air can be used to blow moisture from joints, depressions, etc., and to speed the drying. Once dry, the part is ready for further processing.

Process Note:

If the work coated with Magnesium Treatment is to be painted, it should not be touched with bare hands. If painting is delayed, remove dust with clean, dry rags. If oil collects on the surface coated with Magnesium Treatment, remove it with an appropriate solvent.

Storage Requirements:

Magnesium Treatment solution should not be permitted to freeze or be exposed to temperatures in excess of 100° Fahrenheit. Shelf life is one year from date of manufacture.

Waste Disposal Information:

The Magnesium Treatment solution contains Chromium Trioxide. Consult local waste handling and environmental regulations for proper disposal procedures. Additional disposal information is provided on the Material Safety Data Sheet for the product.

Magnesium Treatment solution contains a strong oxidizer. Rags, sponges, swabs, etc., used for applying or removing the Magnesium Treatment solution should not be allowed to dry out. If allowed to dry, they may constitute a fire hazard. Immediately after use they should be thoroughly rinsed in water before storing or discarding.

Precautionary Information:

When handling the chemical product used in this process, the first aid and handling recommendations on the Material Safety Data Sheet for the product should be read, understood and followed. The product is acidic and may cause irritation of the skin and eyes. Do not get in eyes, on skin or on clothing. See Material Safety Data Sheet for appropriate protective clothing. In case of contact, follow the recommendations on the Material Safety Data Sheet for Magnesium Treatment. Handle the chemicals carefully, observing the usual precautions taken in the handling of acidic oxidizing materials. Keep all unused chemicals tightly sealed in the proper container when not in use. Goggles, rubberized gloves / gauntlets and protection for the clothing must be worn.

Magnesium Treatment solution contains a strong oxidizer. Clothing contaminated with Magnesium Treatment can become dangerously flammable. Immediately remove contaminated clothing and rinse thoroughly with water. Contact of combustible material with Magnesium Treatment Solution may cause fire. The Magnesium Treatment Solution contains chromic acid in excess of 0.1 percent.

The following statement should be included as part of the label for containers in which it is stored:

"POSSIBLE CANCER HAZARD, CONTAINS CHROMIC ACID WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA. Risk of cancer depends on duration and level of exposure."

Refer to Material Safety Data Sheets for additional safety information.