# **Minimox**®

### Minimox<sup>®</sup> Self-Protective Alloy Treatment – Directions for Use

Please keep in mind:

- If iron-based, the alloy must be a stainless-type alloy with at least 10% chromium
- The treatment is not a clear coat the sample will oxidize, but the oxide will be very thin and adherent.
- Minimox works best on metallic surfaces, rather than mill oxide finishes. Mill oxides will benefit, but the effects will not be as striking as metallic surfaces.
- Minimox works better on wrought stainless steels than on cast materials.
- The practical maximum temperature is ≈ 2000°F (≈1090°C) for stainless steel. As this temperature is approached, times of only a few hours are recommended. This is due to the stability of chromium oxide in the alloy – not to the Minimox product itself. Nickel alloys can be exposed to higher temperatures and longer times.
- 1. The metal component should be cleaned of all fingerprints, dust, grease and oil.

2. Gently mix the Minimox® solution container by inverting bottles or stirring containers. Over mixing can cause excessive foaming.

3. To apply by dip *(strongly preferred method)*, immerse the component into a container of Minimox® solution and withdraw slowly. If there is sufficient oxygen and elevated temperature during service, no other processing is required.

4. To apply by spray, adjust the nozzle to a fine mist and apply a uniform, thin coating of Minimox® solution. If there is sufficient oxygen and elevated temperature during service, no other processing is required.

5. For the most demanding applications, particularly metal dusting or other corrosion, or circumstances where there is little oxygen supply in service, a substantial oxide should be initiated while incorporating Minimox® Self-Protective Alloy Treatment into the surface oxide. Contact our office to find the maximum time/temperature for your alloy and application.

6. For long-term applications, or for metals exhibiting creep, periodic respraying is recommended as necessary.

#### Shelf life is 8 weeks at 75°F. Keep out of direct sunlight.

Minimox® Self-Protective Alloy Treatment is for research & development use only. Outcomes are not guaranteed and all properties and hazards may not be known. Material Interface does not assume any risk or liability for results obtained, nor can they accept damages in excess of the purchase price of the product itself if the produce is deemed defective. Determining the suitability of the product for any intended use shall be solely the responsibility of the user. Consult SDS (www.minimox.com) for additional precautions.

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## Technical Bulletin

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