



TURCO[®] SMUT-GO #4

ALUMINUM DEOXIDIZER AND DESMUTTER FOR USE WITH SULFURIC OR NITRIC ACID

DESCRIPTION:

TURCO SMUT-GO #4 is a free flowing, orange and yellow granular mixture designed for deoxidizing and brightening aluminum alloys in spray and immersion systems.

It can be used with either sulfuric or nitric acids, operating from 20 to 35°C, and has been found to be ideal for de-smutting/deoxidizing aluminum castings, as well as bare and clad alloys.

FEATURES:

TURCO SMUT-GO #4 offers these features:

1. Supplied in free flowing, granular form
2. Readily soluble in cold water
3. Used at low temperature, 20 to 35°C
4. Designed to be used in spray or immersion systems
5. Baths can be adjusted to produce specific etch rates

USE INSTRUCTIONS:

Tanks: Tanks, pumps and associated equipment may be fabricated from acid resistant stainless steel or other acid resistant material. Immersion tanks should be equipped with air or mechanical agitation.

Mixing Instructions: SULFURIC ACID -- Prepare a 5 to 10% solution of sulfuric acid, using 66°Be' sulfuric acid. Prepare solution by slowly and carefully adding acid to cold water while mixing constantly. If acid is added too quickly, dangerous heat build up may lead to steam eruption and spattering. Wear face shield, rubber gloves and apron during entire mixing process. Dissolve 30 to 45 grams of TURCO SMUT-GO #4 per each liter of sulfuric acid/water solution.

NITRIC ACID - Prepare a 10 to 15% solution of nitric acid, using 42°Be nitric acid. Prepare solution by slowly and carefully adding acid to cold water while mixing constantly. If acid is added too quickly, dangerous heat build up may lead to steam eruption and spattering. Wear face shield, rubber gloves and apron during entire mixing process. Dissolve 30 to 45 grams of TURCO SMUT-GO #4 per each liter of nitric acid/water solution.

TURCO SMUT-GO #4 ADDITIVE is used in conjunction with TURCO SMUT-GO #4. The use of TURCO SMUT-GO #4 ADDITIVE eliminates the need for further additions of TURCO SMUT-GO #4 to maintain deoxidizer/de-smutter solution.

Processing: Processing time will vary with different aluminum alloys and is dependent upon the amount of oxidation/smut involved. Time is usually from 1 to 10 minutes. Spray processing is generally from 1 to 2 minutes, at a spray pressure of 20 to 30 psi.

Rinsing: Rinse parts as soon as possible with clean, cool to warm water. Overflow rinse is preferred.

Etch-Rate: The etch rate will vary depending on the alloy being processed, the solution concentration, the solution age, etc. The etch rate will typically be in the range of 0.1 to 0.2 mils/hr/side. It may be increased by additions of 70% hydrofluoric acid. To increase the etch rate by 0.01 mil/hr/side, add 0.01% hydrofluoric acid (70%).

CONTROL:

A laboratory test procedure is available upon request.

DISPOSAL INFORMATION:

Dispose of spent solution per local, state and regional regulations. Refer to TURCO MATERIAL SAFETY DATA SHEET for additional disposal information.

CAUTION!

TURCO SMUT-GO #4 contains dichromate, nitrate and bi-fluoride salts. TURCO SMUT-GO #4 ADDITIVE contains dichromate and bi-fluoride salts. Avoid contact with eyes, skin and clothing. Do not take internally. Use with adequate (equivalent to outdoor) ventilation.

Protective clothing, such as a chemical face shield or goggles, gloves, boots and apron made from acid resistant materials should be worn when handling these materials. A NIOSH-approved respirator should be worn for mist, dust or fume conditions.

Keep containers tightly closed when not in use, in dry areas away from oils, greases, reducing agents and combustible materials.

Before using this product refer to container label and TURCO MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information.

NOTICE:

The above information and recommendations concerning these products are based upon our laboratory tests and field use experience with this or similar products. However, since conditions of actual use are beyond our control, any recommendations or suggestions are made without warranty, express or implied. Manufacturer's and sellers sole obligation shall be to replace that portion of the product shown to be defective. Neither shall be liable for any loss, damage, or injury, direct or consequential, arising out of the use of these products.

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