



## MC-3 METAL CLEANER 3 CONCENTRATED CLEANING FORMULA

### APPLICATIONS AND USE

Branson MC-3 Concentrated Solution is a biodegradable, phosphate- and caustic-free alkaline cleaner formulated for general purpose and normal maintenance cleaning applications.

Liquid nonionic surfactants and detergent bases are combined in a formulation with excellent detergent, wetting and free rinsing properties which provides exceptional performance for general maintenance cleaning in virtually all Industries with virtually all base materials.

Branson MC-3 is an ultrasonic cleaning solution which removes oils and a variety of soils from ferrous metals, steel alloys, titanium alloys, copper and copper alloys, and stainless steel. Branson MC-3 is a very effective, specially-formulated cleaner for aluminum and aluminum alloys. Branson MC-3 will tolerate high levels of contamination. It is especially effective in removing fabricating oils, cutting oils, and polishing oils.

Branson MC-3 is an emulsifying cleaner; oils, soils, and greases are entrapped in the cleaning solution and suspended so they can not redeposit on the clean parts. Branson MC-3 contains a special blend of alkalis and detergents in addition to dispersants, deflocculents, and emulsifiers. The cleaning solution cleans rapidly, penetrating into blind holes and between adjacent surfaces.

### APPLICATION PROCEDURES

Branson MC-3 solution is easily mixed with water to form a concentration of 7-10% by volume; and can be used at temperatures ranging from ambient to 160°F (70°C).

For optimum cleaning, Branson MC-3 should be operated at recommended temperatures. Cleaning time is dictated by the quantity and nature of the soils and by the type. Operating Branson MC-3 below the recommended concentrations, temperatures, and times generally will result in poor cleaner performance, characterized by cloudiness and water breaks. Operating Branson MC-3 above the recommended concentration, temperature, and time may cause component metal attack or cause the surfactants to separate from the solution causing poor cleaning. It is imperative that the solution be allowed to 'degas' at operating temperature for a minimum of 10 minutes prior to placing the parts into the cleaning solution. It is best if ultrasonic energy is applied during this time to enhance degassing. Thorough rinsing is suggested for removal of cleaning solution. As with any process involving water, drying should be considered as the final step.

The selection and use of the proper ultrasonic cleaning equipment and component fixturing will influence the cleaning efficiency and performance of MC-3.

When water replenishment quantities meet or exceed 15% of the tank volume, the cleaning ability of the operating solutions may be so reduced as to make further additions of Branson MC-3 unproductive and uneconomical. At this point, it is usually more practical to prepare a new solution. Periodic pH variation checks will indicate solution effectiveness.

## CHEMICAL CHARACTERISTICS

Chemical Composition	Blend of liquid nonionic alkaline surfactants and detergents
Flash Point	None
Recommended Diluent	Water
Biodegradable	Yes
Phosphate Free	Yes
Normal Use Concentration	.7-10% by volume
Normal Use Temperature	120-160°F (50-70°C)
pH at Use Temperature	12.4
Rinsability	Good

## Effect of Working Solution on Metals

Stainless Steel	None
Steel	None
Copper	None
Brass	None
Aluminum	None
Magnesium	None
Zinc	None
Tin	None

## PRECAUTIONARY CONSIDERATIONS

- BRANSON MC-3 CONCENTRATED SOLUTION CONTAINS ALKALINE DETERGENTS, AND DIRECT CONTACT MAY RESULT IN BURNS OF EYES OR SKIN IRRITATION.
- AVOID PROLONGED SKIN CONTACT.
- WASH THOROUGHLY AFTER HANDLING.
- DO NOT TAKE INTERNALLY.
- IF DIRECT CONTACT OCCURS, FLUSH REPEATEDLY WITH COOL, CLEAR WATER.
- KEEP OUT OF REACH OF CHILDREN.

## DISPOSAL

Dispose in accordance with all local, state, and federal regulations.

## BRANSON CONCENTRATED CLEANING SOLUTIONS

MC-1, MC-2 MC-3 Metal Cleaner

EC . . . . .Electronic Cleaner

IS . . . . .Industrial Strength Cleaner

GP . . . . .General Purpose Cleaner

OR . . . . .Oxide Remover

BCR . . . . .Buffing Compound Remover

LRS . . . . .Liquid Rust Stripper

JC . . . . .Jewelry Cleaner

OC . . . . .Optical Cleaner

For additional information concerning these solutions, contact Branson or a Bransonic® dealer.