

General Description

ArmaKleen™ M-100 BCR (Baked on Carbon Remover) is a specially formulated low pH cleaner that performs like a caustic cleaner without the use of free caustics. M-100 BCR is a safer aqueous cleaner designed to attack and remove baked on carbon and other heavy soils from steel and soft metals like cast aluminum engine blocks and other aluminum alloy components. **This revolutionary product not only cleans parts but also brightens aluminum to a like-new condition!** ArmaKleen M-100 BCR is designed for use in immersion, ultrasonic and spray washer applications and is super-concentrated to be used at half of the concentration of normal single purpose cleaners.

When left on metal surfaces, ArmaKleen M-100 BCR provides temporary indoor rust protection for steel surfaces, during storage and between operations. The duration of the rust protection is directly related to environmental storage conditions.

ArmaKleen M-100 BCR complies with the 25 g/L VOC SCAQMD regulations at use concentrations up to 30% cleaner in solution.

Features	Benefits
Low pH Caustic Free Super Cleaner	Lower pH M-100 BCR exceeds the performance of caustic cleaners without damaging the substrate
Versatile	Can be used in spray, ultrasonic and immersion applications
Super Concentrated	10% concentration is recommended; However it can be effective at lower concentration if the application warrants it
Low Foaming	Will not foam in spray applications as low as 120°F
Multi-Metal Safe	Can simultaneously clean steel, aluminum, copper and brass. Does not tarnish or dull cast aluminum parts
Cleaner/Rust Preventative	Cleans metal and provides short term indoor rust protection
Non Flammable	Improves employee safety and eliminates fire hazards
Low VOCs	Meets all Air Quality Standards for VOC emissions at 30% concentration and lower
No phosphates or nitrites	Safer for workers and the environment

Operating Parameters

pH of Concentrate: 10.5
 pH of 10% by volume dilution: 9.5 – 9.8

Equipment Type	M-100 BCR Concentration	Washer Temperature
Immersion Washer	10% by volume	110°F to 180°F
Ultrasonic Washer	10% by volume	110°F to 180°F
Spray Washer	10% by volume	130°F to 180°F

Safety-Kleen Part Numbers

ArmaKleen™ Product (55 Gallon Drum) SK P/N: 6362 (inventory) 650832 (sales)

ArmaKleen™ Product (5 Gallon Pail) SK P/N: 6332 (inventory) 6332 (sales)

Additives

ArmaKleen M-Defoamer HD SK P/N 6310 (Pints – 8 per case)

ArmaKleen M-RP (for added rust protection) SK P/N 6342 (5-gallon pail)

Soil Compatibility

Baked on carbon, varnish, grease, oil, lubricants, machining fluids, rust preventatives, metal working compounds and other commercial and industrial soils

Substrate Compatibility

Steel, stainless steel, cast iron, aluminum, copper, brass and other alloys

Compliance Information



SDS Information

SK P/N 820250 Concentrate English

SK P/N 820250 FR Concentrate French

SK P/N 820252 Cleaning Solution English

SK P/N 820252 FR Cleaning Solution French

Titration Information

Hach Titration Kit

SK P/N 4623 Total Alkalinity Titration Kit (order through branch SAP)

Procedure

1. Fill graduated cylinder with 10 mL of ArmaKleen M-100 BCR cleaning solution. The bottom curve of the solution should touch the top of the indicated line.
2. Pour the measured amount of cleaning solution from the graduated cylinder into the Erlenmeyer titration flask. Rinse the cylinder with 5-8 mL of water and transfer it to the same flask.
3. Add 5 drops of Bromocresol Green-Methyl Red Indicator Solution (small dropper bottle) to the flask and mix to produce a blue color. Clean water may be added to dirty solutions to see the color change more clearly. Several more drops of indicator solution may also be added if the solution is excessively dirty.
4. Carefully add 1.0N Sulfuric Acid (square dropper bottle) one drop at a time to the flask, swirling the flask after each drop. Count the number of drops.
5. When the solution changes to a greenish brown or tan color you are near the end point. Continue adding and counting the number of drops until the solution turns to a peach or bright pink color and the addition of one more drop does not cause any further color change.
6. Use the titration table to find the cleaner concentration from the number of drops of acid used.

- Wash the test solution down a sink with water. Rinse the graduated cylinder and mixing flask well before storing in the case. **Cat.# 27501-00 Titration Guide Rev. 6, 9/10**

TITRATION TABLE																						
% CLEANER CONCENTRATION																						
Cleaner	mls	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	25
Sample		DROPS OF ACID REQUIRED FOR COLOR CHANGE																				
M-100 BCR	5	3	5	7	10	12	14	17	18	20	22	25	27	29	31	33	35	37	38	40	42	50

AquaPhoenix Titration Kit

SK P/N **xxxx** Total Alkalinity Titration Kit (order through branch SAP)

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Cat.# xxxxxxxx Titration Guide Rev. xxxx

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Sample		DROPS OF ACID REQUIRED FOR COLOR CHANGE																				
M-100 BCR	10	2	4	5	6	7	9	10	11	13	14	15	17	18	19	21	22	23	25	26	27	33

Precautions

Foaming may occur in high pressure (above 60 psi) spray systems or at operating temperatures below 120°F

IMPORTANT: The information presented in this product labeling and literature, while not guaranteed, is true and accurate to the best of our knowledge. No warranty, express or implied, is made regarding performance, stability or otherwise. Such information is not intended to be all-inclusive, and the manner and conditions of particular uses may involve other or additional preparatory, performance or safety considerations. While our technical personnel will be happy to respond to questions, safe, effective handling and use remains the responsibility of the user.