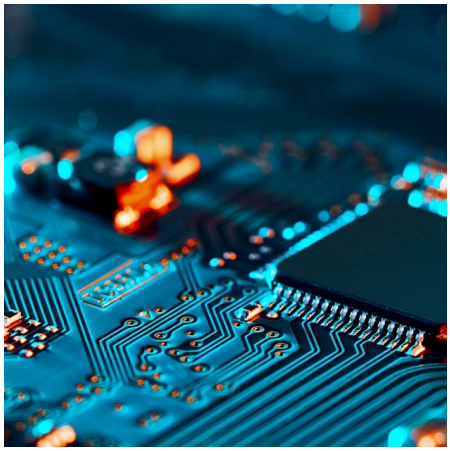
Master STAGES™ CLEAN 2020

Washing Compound for Ultrasonic and Immersion Washers

Master STAGES™ CLEAN 2020 is a concentrate very high-performance cleaner made for washing all metals including brass, copper alloy, and aluminum in ultrasonic or immersion washers. Its cleaning ability is extraordinary, which often leads to shorter cleaning cycles or elimination of cleaning steps. CLEAN 2020's oil rejecting properties mean longer bath life and economical operation.

Electronics Manufacturer Cuts Cleaner Consumption by 50% with Master STAGES™ CLEAN 2020



The customer in Malaysia is recognized as an industry-leading manufacturer of high-performing audio equipment, with superior acoustic performance compared to competitors. In addition, they have made groundbreaking advancements in voice recognition and control technology to improve ease of use and integration with daily activities.

Choose CLEAN 2020:

- Excellent cleaning in immersion and ultrasonic tanks
- Long life because oils split rapidly to the surface of your cleaner tank where they can be skimmed off
- An excellent choice where one product is used for multiple purposes; such as washing mixed batches of ferrous, aluminum, and copper alloy parts
- Will provide extended in-process tarnish resistance on copper and copper alloy parts
- Safe on aluminum, aluminum alloy, and magnesium
- Will remove coolant residues as well as straight oils

CLEAN 2020 especially for:

Applications — immersion tanks, parts washing, and ultrasonic tanks

Soils — chlorinated oils, coolant residues, oils, and sulfurized oils

Materials — aluminum, aluminum alloys, brass, cast iron, copper, copper alloys, ferrous metals, magnesium, yellow alloys, and zinc

Industries — aerospace, automotive, energy, and medical

CLEAN 2020 is free of — 2-butoxyethanol (Butyl), borates, EPA 33/50 listed ingredients, nitrites, phenols, and SARA 313 listed ingredients

Master Fluid SOLUTIONS®

Master STAGES™ CLEAN 2020

Washing Compound for Ultrasonic and Immersion Washers

Application Guidelines

- In ultrasonic washers, CLEAN 2020 should be kept under 160°F (71°C).
- In agitated immersion washers, CLEAN 2020 can operate from ambient to 160°F (71°C).
- Concentrations range from 3% for washing off coolant up to 5%-10% for washing off straight oils.
- Straight oils require skimming as they will split rapidly to the surface. CLEAN 2020 has no cloud-point so foam will remain constant as temperature increases. CLEAN 2020 has been used with great results removing screw machine oils in low-pressure spray washers, such as auger/drum-style washers, where the oil helps break foam.
- CLEAN 2020 does not provide corrosion inhibition for ferrous parts. If such protection is needed, follow the washing process with Master STAGES™ NOCOR® S2, or Master STAGES™ CLEAN 2029 (not compatible with Master STAGES™ CLEAN 2115).
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at https://www.masterfluids.com/na/en-us/distributors/index.php, your District Sales Manager, or call our Tech Line at 1-800-537-3365.

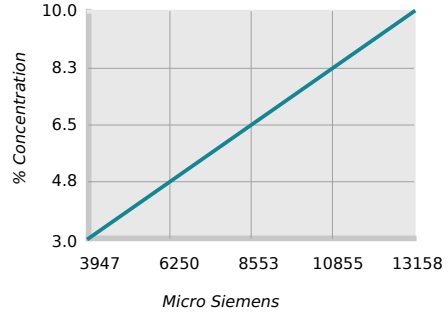
Physical Properties Typical Data

Color (Concentrate)	Pale yellow
Color (Working Solution)	Pale yellow
Odor (Concentrate)	Mild
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 212°F
pH (Concentrate as Range)	13.0 - 13.5
pH (Typical Operating as Range)	11.5 - 12.5
Coolant Refractometer Factor	5.5
Cleaner Conductivity Factor	0.00076
Titration Factor (CL-1 Titration Kit)	0.36
Number of Cleaner Vials (CL-1 Titration Kit)	2
Cleaner Indicator A or B (CL-1 Titration Kit)	A

Recommended Metalworking Concentrations

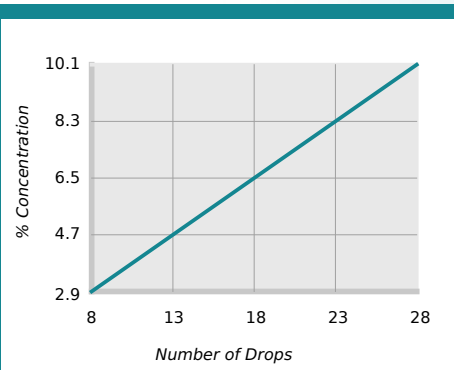
Design Concentration Range	3.0% - 10.0%

Concentration by Conductivity



% Concentration = Conductivity in Micro Siemens x Factor
Conductivity Factor = 0.00076

Concentration by Titration



% Concentration = No. of Drops x Titration Factor
Titration Factor = 0.36

Health and Safety

Request SDS

Master STAGES™ CLEAN 2020

Washing Compound for Ultrasonic and Immersion Washers

Mixing Instructions

- Recommended usage concentration in water: 3.0% - 10.0%.
- To help ensure the best possible working solution, add the required amount of concentrate to the required amount of water (never the reverse) and stir until uniformly mixed.



1-gallon jug
SKU: CL2020-1G
UPC-12: 641238027379



5-gallon pail
SKU: CL2020-5G
UPC-12: 641238027393



54-gallon drum
SKU: CL2020-54G
UPC-12: 641238027409



270-gallon tote
SKU: CL2020-270G
UPC-12: 641238027423

Additional Information

- Industrial use only
- Consult Master Fluid Solutions before using on any metals or applications not specifically recommended.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Fluid Solutions, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Fluid Solutions for recommended action.
- Master STAGES™ is a trademark of Master Chemical Corporation d/b/a Master Fluid Solutions.
- The information herein is given in good faith and believed current as of the date of publication and should apply to the current formula version. Because conditions of use are beyond our control, no guarantee, representation, or warranty expressed or implied is made. Consult Master Fluid Solutions for further information. For the most recent version of this document, please go to this URL:

https://2trim.us/di/?i=na_en-us_CLEAN2020

501 West Boundary Street
Perrysburg, OH 43551-1200
United States
+1 419-874-7902

info@masterfluids.com

masterfluids.com/na/en-us/