

RADIANT 50-L

RADIANT 50-L is a concentrated clear phosphate free alkaline blend of detergent builders and surfactants and designed for use in most types of mass finishing such as vibratory, centrifugal disc and open/closed tumbling applications. Although not designed as a “degreaser”, it will help in emulsifying light oils that may be present on parts during mass finishing. Will afford rust protection to ferrous parts during vibe/tumble processing and can be used as a short term inhibitor. Can be used for finishing of steel, cast iron, copper, brass, aluminum and zinc die cast. Contains silicate which will minimize any etching of aluminum or zinc die cast. Suitable for use with ceramic or synthetic (plastic resin) media or part-on-part in a tumbling application. Not recommended for use with steel/stainless steel finishing media.

Features & Benefits

Low concentration use in conventional vibratory, closed and open tumbling as well as centrifugal disc finishing applications.	Will remove surface oxide(s) to produce clean metal surfaces while keeping mass finishing media clean
Safe and effective for use on most all metals	Particularly well suited for ferrous metals along with brass and copper alloys

Physical Data

Appearance	Blue Clear Liquid
Odor	Faint
Compatibility	Avoid mixture with acids
Foaming tendency	Moderate
pH (neat)	12.0-12.3
pH - 1.0%	10.5-10.8

Operating Conditions

Conventional Vibratory, Centrifugal Disc Finishing (with media)

	Range	Optimum
Concentration	1.0 - 2.0 fl.oz./gallon (7.8 – 15.6 ml./L)	1.5 fl.oz./gallon (11.7 ml./L)
Temperature	Cold - Ambient	Cold
Time	As required	As required
Flow Rate	1.0-1.5 gals./hr./cu. Ft.	1.5 gals./hr./cu. Ft.

Open/Closed Tumbling (with media or part-on-part)

	Range	Optimum
Concentration	2.0 - 5.0 oz./gallon (15.6 – 39.0 ml./L)	3.5 oz./gallon (27.3 ml./L)
Temperature	Cold - Ambient	Ambient
Time	As required	As required

Solution Make-Up:

In general, use of a metering pump to “dose” incoming water line(s) to the vibratory unit or centrifugal disc unit. See the manufacturer’s instructions for setting the pump to deliver the proper quantity of RADIANT 50-L based on the water flow rate to the process unit. It is important that the drain holes at the bottom of the vibratory unit are free flowing and remain free of any lodged media or part chips, etc. to minimize foam build up during processing. For open/closed tumbling, volume of product based on fixed water volume in the vessel.

Product Profile

Caustic (potash)	No
Phosphate	No
Silicate	Yes
Complexors	Yes
Chelates (EDTA, NTA types)	Yes



Recommended equipment – Conventional bowl/tub vibratory units with polyurethane lining. Open/closed tumbler – recommend stainless steel or polyethylene barrels (unheated process)

Waste Disposal

RADIANT 50-L and its working solutions are alkaline. At minimum, waste stream must be neutralized to meet local POTW or municipal effluent discharge requirements. Sludges and oils should be separated out before discharge. Spent RADIANT 50-L solutions may contain dissolved metals from the vibratory tumbling process. Therefore, additional treatment of the solution may be required to meet discharge requirements.

Caution

RADIANT 50-L is moderate alkaline. Consult RADIANT 50-L SDS sheet before handling this product. It should be handled with all the safety precautions associated with alkalis.

Hazard Classification

DOT Hazard Class	8 CORROSIVE
DOT Shipping Name	CORROSIVE LIQUID, NOS (SODIUM SILICATE)
UN Number	1760
Packaging Group	II
ERG	154

WARRANTY: THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.



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Product Bulletin

Product Name: RADIANT 50-L
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Our People. Your Problem Solvers.

For more information on this process,
please call us at 203.756.5521 or email: techservice@hubbardhall.com

Hubbard-Hall holds certifications for **ISO 9001:2015**, Responsible Distribution, as accredited by the **ACD** (Alliance for Chemical Distributors) and as a **Women-Owned Small Business**, as well as maintaining an association with **Omni-Chem**¹³⁶.