

From the label of a 1-gallon bottle of Permawash:

“Heico Permawash

To make a working solution of Heico **Perma Wash Archival High Speed Wash**, dilute 3 fluid ounces of **Perma Wash Archival High Speed Wash** in one gallon of water.

After the film or print has been processed, fixed, and the excess hypo removed in fresh flowing water, bathe it in a solution in a solution of **Perma Wash Archival High Speed Wash**. Agitate the film or print moderately in the **Perma Wash Archival High Speed Wash** solution. Complete the wash with a fresh flowing water rinse. Time cycles and capacities for these procedures, based on a 1 gallon **Perma Wash** working solution are as follows:

Material	First Wash	Permawash	Final Wash	Capacity/Gallon	
Film	30s	30s	30s	75-100 8” x 10”	standard use
Film(1)	1m	1m	1m	75-100	archival
RC Paper(2)	30s	30s	30s	75-100	
DWFB	2m	2m	2m	35-50	standard
DWFB1	5m	5m	5m	35-50	archival
SWFB	25%-30% less than DW times				

A working solution of **Perma Wash Archival High Speed Wash** in an open tray oxidizes slowly in 6 – 8 hours after use and should be discarded. To economize, prepare only the amount of working solution required. A working solution of **Perma Wash Archival High Speed Wash** produces equal results with black and white or color, manual or automatic processing, and within a temperature of 40°F – 90 °F. Deposits formed in **Perma Wash Archival High Speed Wash** working solutions are the contaminants of removed silver sulfide com-plexes.

For specific **Perma Wash Archival High Speed Wash** use instructions, please request the Heico Black and White Photographic Chemicals brochure.

Caution: Contains ammonium sulfite (CAS #10196-04-4); sodium sulfite (CAS #7787-83-7)

Health Hazards: Eye and skin irritant. **Routes of Entry:** Inhalation & ingestion. **First Aid:** In case of eye contact, flush with water for at least 15 minutes. Get medical attention. In case of skin contact, immediately wash with soap and water.

Brandess/Kalt/Aetna strongly recommends that the end user of any chemical solution check with federal, state, and local regulatory bodies to conform with special disposal methods for used solutions to remain in accordance with the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act.

If this product is found to be defective in labeling, manufacturing, or packing, Brandess/Kalt/Aetna will replace it within 1 year. Except for such replacement, this product is sold without any warranty or liability.

Brandess/Kalt/Aetna, 701 Corporate Woods Pkwy, Vernon Hills, IL 60061”

My Mixing Notes

Working solution = 3 oz. concentrate + 128 oz. water = 131 oz. working-strength solution

To mix any volume V of working-strength solution wanted, we need $(3/131)V$ of concentrate + $(125/131)V$ of water to make volume V of working-strength solution.

For example, if you want 500 ml of working strength solution, you need $(3/131)500 \text{ ml} = 11.5 \text{ ml}$ of concentrate + enough water to bring the volume to 500ml in the graduate.

There's no need to measure the water, but the volume of water needed is $500 \text{ ml} - 11.5 \text{ ml} = 488.5 \text{ ml}$.

The 8" x 10" print capacity is given on the label for each line above for a gallon of working solution. The full details are given on the label. I use longer washing times than listed but far shorter than water wash alone. This works for films or papers.

NOTE: I think that the intention of the author of the mixing instructions erred in the wording. If so, it probably should be for preparing 1 gallon of working solution. It should have been “Put 3 fluid ounces of concentrate into a 1-gallon graduate and add water (125 fluid ounces) to bring the volume to 1 gallon.

In that case, the mixing ratio for any volume V is:

Mix $(3/128)V$ of concentrate + $(125/128)V$ of water to make volume V of working solution.