3. Return the film to the developer for 90 seconds with constant agitation; immerse it in the water bath for 20 minutes without agitation.
4. Stop, fix, wash use hypo clear, and finally wash the film in the normal manner

Procedure II: Constant but Short Periods of Immersion in the Developer Bath.

1. Immerse the film in the developer bath with constant agitation followed by immersion in the water bath without agitation as follows
   a. Developer bath -- 30 seconds; water bath -- 2 minutes
   b. Four 15 second immersions in the developing bath each followed by 2 minutes in the water bath.
2. At the end of the developing sequence, a desensitized negative should be inspected under a safelight. Additional development can be carried out if necessary.
3. Stop, fix, wash, use hypo clear, and finally wash in the normal manner.

The water bath method takes skill and patience to learn and perfect. The variations are limitless. These instructions should be considered only as a starting point.

To increase the contrast, add 10% potassium bromide solution. The amount of the solution that you will need must be determined by trial and error. Start with 1 ml of 10% potassium bromide solution per 100 ml of developer and develop a test strip.

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PHOTOGRAPHERS' FORMULARY

FORMULARY AMIDOL FILM DEVELOPER

Formulary Amidol is designed for water-bath development of sheet film. Water-bath processing gives excellent separation of shadows and middle-tones while reducing the total contrast. The chemicals in this kit are used to make 1 liter of working solution which has a 2-3 hour life.

The water bath development technique is a compensating development method that can be carried out in discreet steps. In the procedure, the film is first saturated with the developer then placed in a water bath where the development continues until the developer is exhausted. The highlights exhaust the developer more rapidly than do the shadow areas. Therefore development continues in the shadows after development in the highlights has stopped. Thus the shadows receive a greater proportion of the development than do the highlights. The film can be returned to the developer bath for resaturation and continued development. The number of saturation-water development cycles depend upon the degree of development desired.

A more complete description of the water bath development procedure is given later in these directions. A complete description of the process is given by Ansel Adams in his book, "The Negative", pp. 104-105.

FOR YOUR CHEMICAL SAFETY

All chemicals are dangerous and must be treated with respect. Please read the warning on each package.

Amidol is a poison and must be used with caution. It is probably absorbed through the skin so the use of rubber gloves or tongs is advisable. If spillage should occur, wash the area (skin or work area) first with water, then with a 2% solution of

hydrochloric acid (5ml of concentrated hydrochloric acid [37%] diluted to 100 ml with water), and finally with soap and water.

Amidol stains. Staining is due to the air oxidation of the free base of amidol which is present in neutral or basic solution. Soap, for example, is sufficiently alkaline to cause the amidol hydrochloride salt to be converted to the free base which will then rapidly oxidize. In cleaning a darkroom after amidol use, first use water (amidol is very water soluble) and then a 2% solution of hydrochloric acid. The acid ensures that the amidol remains in the salt form. Once amidol has been oxidized and has stained, there is not much that can be done.

The user assumes all risks upon accepting these chemicals. IF FOR ANY REASON YOU DO WISH TO ASSUME ALL RISKS, PLEASE RETURN THE CHEMICALS WITHIN 30 DAYS FOR A FULL REFUND.

Please consult with local sewer and water authorities regarding disposal of darkroom chemicals in your area.

MIXING THE STOCK SOLUTION

You will need a mixing container with a 1 liter capacity.

We recommend you wear a dust mask, splash goggles, rubber gloves and a rubber apron anytime you are mixing dry chemicals.

Chemical	Amount
Distilled water (20° C/68° F)	750 ml
Sodium Sulfite	20 g
Amidol	5 g
Distilled water to make	1000 ml

Place the water in the mixing container and add the sodium sulfite. Stir the solution until the solid goes into solution. Add the amidol and stir to dissolve the solid. Add water to bring the total volume of the solution up to 1000 ml. Finally, stir the solution to ensure it is homogenous.

The Amidol Film Developer kit also includes a 10g package of potassium bromide which can be used to prepare a 10% solution that can be used as a restrainer.

This solution may or may not be needed, depending upon the film you are developing and the degree of contrast desired. To prepare a 10% solution of potassium bromide, place all of the solid in a 100 ml graduated cylinder and fill the cylinder to the 100 ml mark with water. Stir to dissolve. Be sure the solution is homogenous before use.

LIFE OF THE DEVELOPER

Amidol Film Developer has no shelf life and has a tray life of about 4 hours.

USING THE DEVELOPER

Amidol Film Developer works best when used in the water bath development technique. To use this method of development, you will need trays containing the developer, water, a stop bath, fix, water (for a water wash after the fixer), and hypo clear.

For best results, the film must lie flat in both the developer solution and in the water bath. Film hanger should not be used. To aid in the inspection of the negative during development, it is suggested that the negative be desensitized prior to development. To desensitize the negative, bathe it in a solution of pinacryptol yellow (1:200) [Formulary catalog number 10-0906] for two minutes with constant agitation, then rinse with water for one minute. The desensitized negative can be viewed using a 40-60 watt light and a Series 3 Wratten safelight.

There are two different ways to carry out a water bath development. They differ only in the amount of time the film is allowed to remain in the developer bath.

Procedure I: Increasing Duration of Immersion in the Developer.

1. Immerse the film in the developer with constant agitation for 40 seconds , then transfer the film to a tray of water and immerse it without agitation for 2 minutes.

2. Transfer the film back to the developer and immerse it for 50 seconds with constant agitation then return it to the water tray and again immerse it for 2 minutes without agitation.