

# PHOTOGRAPHERS' FORMULARY

## FORMULARY FILM DEVELOPER 50

### CATALOG NUMBER 01-0110 TO MAKE 1 LITER

Formulary Film Developer 50 is a moderately fast developer for commercial and sheet sizes of Plus-x, Pan professional films. The developer produces negatives with normal contrast, average to slightly higher than average graininess. May use with or without dilution.

Undiluted developer can process 5- 8X10's per 1 liter of Formulary 50 without replenishment. Diluted developer 1:1 can process 10- 8X10's per liter.

The chemicals in this kit are used to make a working solution with a shelf life of 6 months, in a full-capped container. A 2-month shelf can be expected on a half full container.

#### CHEMICALS CONTAINED IN THIS KIT

Chemical	1 Liter
Metol	2.5 Grams
Sodium Sulfite	30 Grams
Hydroquinone	2.5 Grams
Sodium Metaborate	10 Grams
Potassium Bromide	.5 Grams

#### FOR YOUR CHEMICAL SAFETY

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

Only one chemical used in the kit, metol, needs special attention. Some individuals become sensitized to metol. If this should occur, discontinue use and see a physician.

The user assumes all risks upon accepting these chemicals. IF FOR ANY REASON YOU DO NOT WANT TO ASSUME ALL RISKS, PLEASE RETURN THE CHEMICALS WITHIN 30 DAYS FOR A FULL REFUND.

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

#### MIXING THE DEVELOPER WORKING SOLUTION

You will need a brown bottle with a capacity of one liter, and a mixing container.

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

Chemical	1 Liter
Distilled water (52° - 125° F)	750 ML
Metol	2.5 Grams
Sodium Sulfite	30 Grams
Hydroquinone	2.5 Grams
Sodium Metaborate	10 Grams
Potassium Bromide	.5 Gram
Distilled water to make	1000 ML

Place the warm water in the storage container, add a pinch of sodium sulfite and stir the solution. This small amount of sodium sulfite minimizes the initial oxidation of the metol. If more of the sulfite is added at this point the metol will not dissolve. Next add the metol and stir until dissolved. It is important to dissolve all the metol before the bulk of the sodium sulfite is added. Add the remaining chemicals in the order given and stir to dissolve between each addition. Add sufficient cold water to bring the solution up to volume. Stir the solution to ensure it is homogenous and transfer it to its storage container.

### **SHELF LIFE**

The working solution full strength has a tray life of about 24 hours. Diluted working solution has a tray life of about 12 hours.

### **CAPACITY AND REPLENISHMENT**

The capacity of Developer 50 is full strength 5 sheets 8X10's per liter of working solution. The diluted 1:1 solution has a capacity of 10 8X10's per liter of the working solution. The capacity can be extended by replenishment with Formulary DK-50 Replenisher (catalog number 01-0115).

### **USING THE DEVELOPER**

#### **Standard Development:**

We recommend using the working solution at 68°F, full strength, using your normal development sequence.

Fix and wash as you normally do.



**F** PHOTOGRAPHERS'  
FORMULARY INC.

P.O. Box 950 • Condon MT 59826 • FAX 406-754-2896